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Employment and
Immigration Canada

Emploi et
Immigration Canada

Government
Publications

Occupations in major groups

- 91 transport equipment
operating
- 93 material handling
- 95 other crafts and
equipment operating
- 99 occupations not
elsewhere classified

Canadian
Classification and
Dictionary of
Occupations

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National Occupational
Analysis and
Classification Systems

Systèmes nationaux
d'analyse et de
classification des professions

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IMPORTANT NOTICE

It is essential that this book always be used in conjunction with the CCDO GUIDE.* Only in the GUIDE will the key to the entire CCDO System be found. The GUIDE explains in detail all characteristics pertinent to the classification structure, and the treatment of special groups, titles and definitions. Worker traits such as aptitudes, interests and temperaments are explained, as is a worker's relationship to Data, People and Things functions. Work characteristics such as General Educational Development (GED), Specific Vocational Preparation (SVP), Physical Activities (PA) and Environmental Conditions (EC) are also described. An extensive alphabetical index of both job and occupational titles is included as well as an index of industry designations and their definitions.

*CCDO GUIDE. Published annually and available from the Canadian Government Publishing Centre, Supply and Services Canada, Hull, Quebec, K1A 0S9, or their agents across Canada.

SPECIAL NOTICE

In determining the data for inclusion in this publication, many jobs were examined and analyzed to determine their contents. No facts were collected, however, on such matters as hours of labour, wages or salaries, or other related employment practices.

As the content of specific jobs varies with each individual establishment, most of the occupational definitions are described in broad terms. For these reasons, the data in this publication cannot be considered as standards for setting working conditions, pay scales or related employment conditions, and the Canada Employment and Immigration Commission accepts no responsibility for the setting of these or other jurisdictional matters.

It is to be noted that the presence or absence of Physical Activities (PA) factors in a CCDO occupational definition is not to be misconstrued as indicating that the physically handicapped can or cannot perform the duties of that occupation.

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BOOK

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991 OCCUPATIONS NOT ELSEWHERE CLASSIFIED

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- 9919 Other Occupations, n.e.c.

MASTER TITLES AND DEFINITIONS

(Refer to TYPES OF OCCUPATIONAL TITLES in Introduction to the CCDO GUIDE for explanation of master titles and definitions and their applications)

01-060 DESIGN ENGINEER (prof. & tech., n.e.c.)

Applies established engineering principles to the design and development of equipment, structures, processes and systems, by performing any combination of the following duties:

Analyzes proposal, product or equipment specifications, and process requirements to conceive a practical design. Determines feasibility from the standpoint of costs, space, time limitations, company plans, availability of standard equipment and other technical and economic factors. Consults with research engineers and scientists, or customer representatives to resolve design problems related to product styling and production planning. Provides technical information concerning construction and manufacturing techniques, material properties, and advantages and limitations affecting plant, product and long-range planning. Compiles and analyzes operational data, and directs complex tests to establish standards for new designs or modifications to existing equipment, products or processes. Prepares related installation, operation and maintenance specifications and instructions. Supervises and co-ordinates the work of technologists and technicians who act in direct support of research activities.

01-070 ENGINEERING TECHNICIAN (prof. & tech., n.e.c.)

Carries out a limited number of technical functions in an engineering specialization, such as chemical, civil, electrical, industrial, mechanical, metallurgical, mining, petroleum, aeronautical or nuclear engineering, primarily in relation to installation, operation and maintenance, quality control and production planning activities, using a basic knowledge of specific engineering, scientific, mathematical and drafting design principles and techniques, by performing any combination of the following duties:

Interprets work assignment instructions, selects and adapts standard procedures, techniques and equipment and establishes work sequence. Prepares, marks, measures or weighs test materials or samples. Estimates time, quantities of material, and labour required for such activities as testing, installation, maintenance, manufacture or construction. Incorporates design details into drawings following specifications for machinery, tools, or processes. Constructs, installs, maintains, repairs, calibrates and modifies standard equipment or systems according to standards, tests or instructions. Adapts and constructs auxiliary devices for tests, and operates standard equipment to test materials, samples and products. Makes calculations and prepares charts, graphs and supporting data for reports.

01-080 ENGINEERING TECHNOLOGIST (prof. & tech., n.e.c.)

Carries out a variety of technological functions in an engineering specialization, such as chemical, civil, electrical, industrial, mechanical, metallurgical, mining, petroleum, aeronautical, or nuclear engineering, primarily in support of engineering research, development and design activities, using knowledge of engineering, scientific, mathematical and drafting design principles and practices, by performing any combination of the following duties:

Analyzes technical problems, co-ordinates the construction of working models, pilot plants and similar prototypes, and develops and interprets design specifications for complex equipment and processes to assist engineers and other technical workers in the research, design, and development of products, systems, processes and equipment. Represents engineers on work or test sites to ensure compliance with design specifications, study objectives and standards relating to production or quality control, and industrial or construction safety. Examines and evaluates assignments, defines problems, determines procedures to arrive at solutions, and schedules work. Obtains or prepares detailed estimates of time, quantities, labour and material costs required for work in such areas as product design, testing of construction, equipment installations, and manufacturing processes. Diagnoses complex equipment or process malfunctions, production or test problems; plans and carries out corrective action or directs other workers in rectifying problems. Conducts work studies and method analyses, and performs

statistical calculations necessary for establishing work standards. Interprets and evaluates, at a level below that of the engineer, experimental, test, and other data and prepares reports and recommendations based on evaluations. Oversees and co-ordinates activities of technicians, skilled craftsmen/women and other workers engaged in various aspects of technical assignments. Assists in the training of less experienced technical workers.

01-090 GENERAL MANAGER (prof. & tech., n.e.c.)

Plans, organizes, directs and controls the major functions of an industrial, commercial, governmental, or other establishment through departmental managers and other subordinate executives, and within powers delegated by a directorate, governing body, or official decree, by performing any combination of the following duties:

Establishes organization objectives, formulates and approves policies and programs and sets standards by using knowledge of organization's capacities; analyzing economic, social, technical, legal and other trends; consulting with subordinate managers and executives; and reviewing staff recommendations and reports. Authorizes establishment of major departments and key executive positions, and funds to implement departmental policies and programs. Selects or approves selection of departmental managers and senior staff, delegates authority and approves overall personnel program. Directs, motivates and develops skills of executive and managerial personnel to foster productivity, growth and high morale, exercising leadership ability and using knowledge of management science. Co-ordinates activities of departments or other functional units by utilizing staff conferences, schedule boards, flow charts and other devices, and by developing effective lines of communication. Provides for administration controls, such as reports, audits and inspections. Maintains awareness of developments affecting objectives and policies, and takes initiative in effecting remedial action or needed adjustments, in consultation with executives concerned. Assumes responsibility for products or services of establishment. Represents organization, or delegates representatives in negotiations, at conventions, seminars and other official occasions. Entertains officials, develops liaison with other organizations and frequently sits on charitable, educational or other civic committees, to promote good public relations.

General managers are designated according to the industry in which they work, and frequently, as senior officials, hold appointments such as President, Vice-President or Chairman/woman of the Board or other governing body.

01-140 LIFE SCIENCES TECHNICIAN (prof. & tech., n.e.c.)

Carries out a limited number of technical functions in a life sciences specialization, such as botany, zoology, forestry, horticulture, agriculture or medicine, primarily in relation to biological testing and analysis activities, using a basic knowledge of specific scientific and mathematical principles, and laboratory techniques, by performing any combination of the following duties:

Interprets work assignment instructions, selects and adapts standard procedures, techniques and equipment and establishes work sequence. Takes, prepares, marks, measures or weighs biological specimens. Sets up laboratory, medical and other scientific equipment for experiments, tests and analyses, and adjusts or aligns equipment as required. Conducts experiments, tests and analyses, and records and organizes observations and conclusions. Makes calculations and prepares charts, graphs and other supporting data for reports.

01-150 LIFE SCIENCES TECHNOLOGIST (prof. & tech., n.e.c.)

Carries out a variety of technological functions in a life sciences specialization, such as botany, zoology, forestry, horticulture, agriculture or medicine, primarily in support of biological research, testing and analyses activities, using knowledge of scientific and mathematical principles and laboratory practices, by performing any combination of the following duties:

Assists life scientists and other technical workers in design and development of research methods and equipment. Searches reference publications and makes recommendations concerning technical problems. Performs pre-test experiments and analyses, develops design specifications for, and constructs or oversees the construction of special test equipment. Obtains or prepares estimates of time, and costs of quantities of material and equipment for tests, analyses, experiments or other research activities; plans and schedules work. Sets up scientific equipment for experiments, tests and analyses, and calibrates precision equipment as required. Performs quality control tests to ensure reagents and equipment are functioning as specified. Conducts experiments, tests and analyses, requiring a high degree of skill and judgment, and involving a large number of operations with many possible sources of error. Modifies and adapts procedures and equipment as required. Interprets and evaluates test and other data at a level below that of the life scientist; prepares reports and recommendations based on evaluations, and frequently assists life scientists in preparing material for publications.

01-170 MANAGER (prof. & tech., n.e.c.)

Plans, organizes, directs and controls the activities of a department, division, program, regional office or other unit of an industrial, commercial, governmental or other establishment, through subordinates who are at a supervisory level or above and within policies laid down by senior management by performing any combination of the following duties:

Establishes procedures to implement policies and directives of senior management, and recommends changes in policies to achieve assigned objectives, based on detailed knowledge of the unit's performance capabilities. Prepares and submits financial estimates for approval. Determines organizational structures in unit, and defines subordinate managerial and supervisory functions. Selects or approves appointment of subordinate staff, and directs their training to ensure efficient usage of personnel and material. Co-ordinates activities within assigned areas and with other departments or units by conferring with other managers or subordinates and utilizing schedule boards, flow charts and similar devices. Reviews effectiveness of assigned operations, enforces regulations, prepares reports, and advises senior management of trends in own operations which may be significant for other units of the organization. Assumes responsibility for operations of unit. Assists staff with important and difficult administrative or technical problems. Negotiates with specialists, technical consultants and external organizations on matters such as business services and union contracts. Represents organization on boards or committees as a delegated specialist, or in a public relations capacity.

Managers are usually designated according to assigned responsibility in the department or other unit of the organization.

01-180 MANAGING SUPERVISOR (any ind.)

Plans, organizes, directs and controls the operations of an establishment engaged in retail or wholesale trade, or in providing services to the public, to business or other organizations, on own or owner's behalf or in partnership, and supervises and co-ordinates activities of subordinate workers, by performing any combination of the following duties:

Estimates consumer demands, and determines or recommends types and quantities of merchandise or services to be sold, and price and credit policies to be implemented. Defines operating procedures. Plans budget, prepares or supervises preparation of purchase orders for stock and supplies, and authorizes or obtains authorization for expenditures. Establishes layout of premises. Determines staff functions and numbers and hires or arranges for hiring of staff. Assigns duties, sets salaries, and initiates personnel action such as promotions and discharges. Supervises and trains workers, or oversees supervision and training. Co-ordinates activities of workers to ensure efficient operations. Counts and deposits money received, or supervises handling of money, takes or verifies inventories, and keeps accounts and other records. Ensures that safety, health and security regulations are followed. Promotes the sale of establishment goods or services, and approves advertising and display work. Receives and acts on customer complaints. Confers with workers or their representatives to resolve grievances, and other employee problems.

When operating a small establishment, performs some or all of the duties of the workers. When operating an establishment on own behalf

or in partnership, is commonly known as a WORKING PROPRIETOR. See term title definition, 02-450 WORKING PROPRIETOR, for method of classification. Managing supervisors, including working proprietors are designated according to merchandise or services offered for sale, or type of establishment operated.

01-210 PHYSICAL SCIENCES TECHNICIAN (prof. & tech., n.e.c.)

Carries out a limited number of technical functions in a physical sciences specialization, such as physics, chemistry, geology, geophysics, meteorology or astronomy, normally in relation to operation and maintenance, and quality control activities, using a basic knowledge of specific scientific and mathematical principles and laboratory techniques, by performing any combination of the following duties:

Interprets work assignment instructions, selects and adapts standard procedures, techniques and equipment, and establishes work sequence. Prepares, marks, measures or weighs test materials or samples. Sets up laboratory and other scientific equipment for experiments, tests and analyses, and adjusts or aligns equipment as required. Conducts experiments, tests and analyses and records and organizes observations and conclusions. Makes calculations and prepares charts, graphs and other supporting data for reports.

01-220 PHYSICAL SCIENCES TECHNOLOGIST (prof. & tech., n.e.c.)

Carries out a variety of technological functions in a physical sciences specialization, such as physics, chemistry, geology, geophysics, meteorology, or astronomy, primarily in support of research activities, using knowledge of scientific and mathematical principles and laboratory practices, by performing any combination of the following duties:

Assists physical scientists and other technical workers in design and development of research methods and equipment, by searching reference publications, making recommendations concerning technical problems, performing pre-test experiments and analyses, and by developing design specifications for, and constructing or overseeing the construction of special test equipment. Obtains or prepares estimates of time and costs, of quantities of material and equipment for tests, analyses, experiments or other research activities. Plans and schedules work. Sets up scientific equipment for experiments, tests and analyses, and calibrates precision equipment as required. Conducts experiments, tests and analyses, requiring a high degree of skill and judgment, and involving a large number of operations with many possible sources of error. Modifies and adapts procedures and equipment as required. Interprets and evaluates experimental, test and other data at a level below that of the physical scientist; prepares reports and recommendations based on evaluations, and frequently assists physical scientists in preparing material for publications.

01-230 SALESPERSON (ret. trade; whole. trade)

Sells merchandise to individuals from sales floor and at customer's home or place of business, applying knowledge of characteristics, quality and merit of items sold, by performing any combination of the following duties:

Talks to customer on sales floor or elsewhere to ascertain his or her wants, and follows up initial contact, by phone or in person, to solicit business. Displays merchandise, shows descriptive material and demonstrates article, emphasizing saleable features. Advises customer on care and use of article. Estimates or quotes prices, credit terms, trade-in allowances and delivery date. Prepares sales slip or sales contract. Receives payment or obtains credit authorization. Prepares reports of business transactions and keeps expense accounts. Sets up displays of merchandise in window or on sales floor. Prepares inventory of stock, and requisitions merchandise from stockroom or warehouse.

Salespersons are usually designated according to product sold.

01-250 SUPERVISOR; FOREMAN/WOMAN (any ind.)

Supervises and co-ordinates activities of workers engaged in one or more occupations, by performing any combination of the following duties:

Studies assignments, determines manpower requirements, and estimates materials and supplies needed for completion of work. Establishes

methods to meet work schedules. Requisitions materials and supplies. Hires and assigns duties to workers, recommends or initiates personnel actions, such as promotions, transfers, discharges, and disciplinary measures, and maintains personnel and attendance records. Trains or arranges for the training of workers and explains company policies. Sets up machines and equipment and interprets work orders, specifications or technical drawings. Initiates or suggests plans to motivate workers to achieve goals. Co-ordinates activities of own workers and confers with other supervisors, foremen/women and/or superiors to avoid conflicts with other units or departments. Ensures that quality of work meets standards, inspects materials received, and enforces safety regulations. Analyzes and resolves work problems. Prepares and submits production, progress or other reports. Recommends measures to improve work

methods, equipment performance, quality of product or service, and working conditions. Confers with workers or their representatives to resolve complaints and grievances.

When supervising workers engaged in one occupation, is usually required to be adept in activities under supervision. When supervising workers engaged in several occupations, is required to possess general knowledge of activities involved. Supervisors and foremen/women are designated according to type of work supervised, process involved, craft of workers supervised, product manufactured or industry in which work occurs. A working supervisor or foreman/woman, commonly known as a **GROUP LEADER**, or **LEAD HAND**, who primarily performs the same duties as the workers supervised, is identified by the same occupational title as the workers.

TERM TITLES AND DEFINITIONS

(Refer to TYPES OF OCCUPATIONAL TITLES in Introduction to the CCDO GUIDE for explanation of term titles and definitions and their applications)

02-010 APPRENTICE (any ind.)

A term used to describe a worker who is bound by contractual agreement to serve an employer for a specified period of time, with a view to learning a craft or trade in which the employer is obligated to instruct him or her:

In general, the contract sets out the minimum number of hours of training required to complete the apprenticeship and outlines wage increases throughout the program on the basis of a graduated minimum scale. An apprentice follows a program of on-the-job, and related classroom and shop training lasting about one to four years and leading to a prescribed level of competence in an occupation. Apprenticeship programs are usually under the guidance of an advisory committee representing management, labour and government. Entry age and educational levels, health standards and training requirements vary with the apprenticeship occupation and frequently are specified by provincial legislation. An apprentice is usually between the ages of sixteen and twenty-five. In some provinces, an older worker with background experience in a trade may be accepted as a 'mature apprentice'. Credit may be given for previous related experience or training. Normally, the successful completion of eight to twelve years schooling is required before commencing apprenticeship. An examination on all phases of training usually terminates the program, and successful completion results in the receipt of a certificate of apprenticeship. Workers who complete an apprenticeship program may be required to obtain licences or pass certification examinations before being permitted to practise their trade.

Apprentices are classified in the same unit group as the occupations for which they are being trained.

02-040 ASSISTANT (any ind.)

A term used to describe a worker who directly assists another or other workers at the professional and managerial levels, by performing essentially DATA- and PEOPLE-related functions that are clearly subordinate to those of the worker assisted, but which frequently require formal training in the assistant specialization:

Excluded are the following who should be designated and classified as indicated: A worker who performs duties closely related to those of the worker assisted and who on occasion may assume the authority and responsibilities of the worker assisted should be assigned the same title and classification as the worker assisted. A worker who has been designated as an assistant by an establishment because his or her work fulfills an operational support function, but who does not directly assist other workers, should be assigned a title more indicative of the work performed and classified accordingly. A worker who directly assists a professional such as one engaged in a scientific, engineering, mathematical or drafting design field by performing essentially DATA- AND THINGS-related functions may be designated and classified as a TECHNICIAN or TECHNOLOGIST.

A worker who performs routine, primarily manual duties in direct support of a more competent processing, manufacturing, construction and primary industry worker may be designated and classified as a HELPER. See term title definition, 02-160 HELPER.

02-070 CHIEF ENGINEER (prof. & tech., n.e.c.)

A term used to describe an engineer who uses the principles and methods of management to supervise and co-ordinate the technical or administrative activities of other engineers, technologists, technicians and trades people:

The workers supervised are concerned with such activities as research, design, development, evaluation, manufacture and repair of machinery, components, tools and equipment; and with related methods, procedures and processes in governmental, industrial and business establishments.

Chief engineers are usually classified in the same unit group as the engineers they supervise.

02-090 CONSULTANT (prof. & tech., n.e.c.)

A term applied to a worker who utilizes expertise and knowledge of a specialized field of activity to evaluate and recommend improvements in the practice of that specialization in a commercial, industrial, governmental or other organization, by performing any combination of the following duties:

Analyzes objectives, policies, methods and procedures relating to specializations, such as product administration, labour relations, public relations and safety standards. Devises tests, prepares flow charts, conducts interviews and examines records and other data to determine degree to which objectives are being achieved. Prepares reports and recommendations for modification and changes in policies, methods and procedures to improve efficiency. Assists with implementation of recommendations by such means as revising procedures, and preparing and conducting retraining sessions.

Consultants are designated according to title of specialization, such as ENGINEERING CONSULTANT, PERSONNEL MANAGEMENT CONSULTANT, and EDUCATIONAL SPECIALIST. These occupations are classified in the unit group with the worker, in the same field of specialization, who performs functions of a non-consulting nature, or, when such a unit group does not exist, in Unit Group 1179 - OTHER OCCUPATIONS RELATED TO MANAGEMENT AND ADMINISTRATION.

02-130 ENGINEER (prof. & tech., n.e.c.)

A term used to describe a worker who plans, designs and develops equipments, machines, products, systems and processes, using scientific and engineering principles, to serve human needs and desires:

Engineers must possess qualifications acquired through formal training and work experience which normally lead to legal certification by appropriate licensing authorities. Engineers are classified according to the discipline in which the individual is most active, such as aeronautical, agricultural, electrical, electronic, chemical, civil, mechanical, metallurgical, mining, marine and structural engineering. Engineers primarily engaged in managerial, teaching or sales activities are classified in the appropriate Major Group according to work performed.

02-150 GRADER (any ind.)

A term used to describe a worker who classifies and sorts materials and products according to established quality-control standards:

Examines materials and products by sight, touch, taste or smell, or by the use of scales or gauges, and grades them according to such standards as weight, size, colour or general condition. Grades foodstuffs such as grains, fruits, vegetables, meat, eggs and cheese. Grades other products such as tobacco, lumber, diamonds, leather and fur.

Graders are usually designated according to the product graded, and are normally classified in unit groups for INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS.

02-160 HELPER (any ind.)

A term used to describe a worker who supports another worker of a higher level of expertise in an occupation, by performing a combination of more routine, essentially manual duties, such as the following:

Conveys and holds materials and tools for worker aided, and uses hand or power tools or appliances in a helping capacity. Transports materials, tools, and supplies to and from worksite, using wheelbarrows, hand trucks, hoists, powered equipment and similar devices. Prepares surfaces and mixes materials for the use of the worker aided, and cleans, mounts, places, or assembles parts or objects. Performs routine tasks related to installation, set-up, maintenance or dismantling of machines and equipment. Tends or feeds machines and equipment, offbears materials or parts and performs operating adjustments as directed. Takes samples for analysis, keeps work records, or performs other related tasks.

A worker who can perform his or her work independently of another worker is not a HELPER, and is designated and classified according to the work performed. HELPERS are classified in the appropriate unit group according to work performed.

02-170 INSPECTOR (any ind.)

A term used to describe a worker who critically examines any of a variety of goods, services or operations for conformity to established quality, health, safety, legal, business, ethical or other standards, by performing any combination of the following duties:

Examines raw materials for quality and manufactured items for defects and for conformance to specifications, visually and using sample models and instruments, such as scales, gauges, templates, calipers and micrometers. Verifies that established standards are maintained relative to such matters as food-growing, processing and marketing; product-packaging; storage and transportation methods; buildings and facilities; and business practices, operations and services. Affixes seals or tags to approved items, issues or revokes licences and permits or ascertains that licences and permits have been obtained and are displayed. Confers with officials, interprets regulations and codes, and assists establishments in altering methods and practices to meet established standards. Investigates complaints and violations, prepares reports of findings and action taken or recommended, files charges and testifies in court. Recommends changes in standards, administrative procedures, facilities, methods and practices.

Inspectors are normally identified according to product, item or service inspected. Typical titles are: 8256-112, PAPER INSPECTOR (pulp & paper); 8336-110, WELD INSPECTOR (mach., weld. & forg.). Inspectors in the fields of processing, machining, fabricating and assembling materials, goods or products are classified in unit groups for INSPECTING, TESTING, GRADING, AND SAMPLING OCCUPATIONS. Inspectors and Regulatory Officers concerned with enforcing and advising on governmental health, safety or other regulations are classified in Unit Group 1116, INSPECTORS AND REGULATORY OFFICERS, GOVERNMENT. Inspectors and Regulatory Officers concerned with enforcing and advising on adherence to non-governmental standards and regulations in such areas as quality of service and observance of company business policies and procedures, are classified in Unit Group 1176, INSPECTORS AND REGULATORY OFFICERS, NON-GOVERNMENT.

02-190 LABOURER/ELEMENTAL WORKER (any ind.)

A term used to describe a worker who performs one or more uncomplicated tasks, usually physical in nature, involving such functions as feeding-offbearing and handling materials and objects, which may require the use of simple tools or equipment:

In the performance of his or her duties may be required to speak to, signal or serve other persons and carry out simple data-related functions such as copying and comparing. Applies common sense understanding to carry out tasks in standardized situations with occasional or no variables in or from these situations. Normally, these tasks require only simple demonstration, instruction or explanation in preparation for average performance on the job, though in some instances training may last a few days.

Many occupations which are classified in unit groups entitled, 'OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK' are not designated by the title LABOURER, but by titles which are more descriptive of the work performed, such as 9318-142, PACKAGER, HAND (any ind.) and 8578-130, MOULD FILLER (plastic prod.; rubber). Workers designated as LABOURERS or ELEMENTAL WORKERS, who perform a combination of uncomplicated tasks, such as those of a LABOURER, GENERAL, may be required to carry out tasks involving a few concrete variables in standardized situations.

02-240 MANUFACTURER'S SERVICE REPRESENTATIVE (any ind.)

A term used to describe a worker who utilizes a knowledge of mechanical, hydraulic and electrical principles and the manufacturer's specifications, to provide service in the installation, operation and repair of equipment in customer's establishment, by performing any combination of the following or similar duties:

Consults with staff in manufacturer's engineering department to resolve problems of machine design, and to avoid construction and installation problems in customer's establishment. Studies drawings or blueprints to become familiar with equipment operation. Oversees installation of equipment in customer's establishment. Operates machine through trial runs to ensure that quality and rate of production meet specifications. Trains customer's personnel in operating, adjusting, maintaining and

repairing equipment. Consults with customer about deviation of equipment operation from original specifications, and explains reasons for changes. Repairs or supervises repair of worn or defective equipment in customer's establishment.

Manufacturer's service representatives are classified in unit groups which reflect the nature of service provided and type of equipment serviced.

02-280 NOTARY PUBLIC (prof. & tech., n.e.c.)

A term used to describe a worker who performs any combination of the following legal-service duties as prescribed by a commission issued by provincial government:

Witnesses, certifies and attests the validity of signatures on documents. Takes and certifies acknowledgement or proof of powers of attorney, mortgages, deeds, and other legal documents. Takes depositions and affidavits for use before court, judge or officer within jurisdiction. Administers oaths and affirmations. Keeps permanent records of official acts.

Workers whose regular duties include those described above are classified in Unit Group 2343, LAWYERS AND NOTARIES. Workers who perform duties of the term title, 02-280 NOTARY PUBLIC (prof. & tech., n.e.c.), in addition to the duties of another occupation, are classified according to their principal occupation.

02-310 RESEARCH ENGINEER (prof. & tech., n.e.c.)

A term used to describe an engineer who, in co-operation with scientists and other engineers, engages in basic and applied research activities, directed toward the investigation, evaluation and application of engineering and scientific theories and principles to practical problems:

Conducts studies in areas, such as pre-stressed concrete construction, high-pressure instrumentation, supersonic flight, operation of continuous chemical processes at high and low pressures and temperatures, radar, colour television and electronic computation and control. Consults with other engineers and scientists regarding the development and improvement of new or existing products, services or production processes. Follows the studies from inception, through the drafting phase, to the production of the prototype or model and the preparation of technical reports. Supervises and co-ordinates the work of technologists and technicians who act in direct support of his or her research activities.

Research engineers are classified in the appropriate engineering unit group according to work performed.

02-330 SAMPLER (any ind.)

A term used to describe a worker who collects samples of raw or processed materials for laboratory analysis and quality-control purposes, performing duties such as the following:

Collects samples by dipping, scooping, pouring or cutting. Marks samples with identifying information and sends them to laboratory. Weighs, pulverizes, screens and/or blends materials from various collection points to provide representative samples.

Samplers are normally designated according to the material sampled, and are classified in unit groups for INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS.

02-350 SCIENTIST (prof. & tech., n.e.c.)

A term used to describe a worker who conducts investigations or enquiries to acquire a theoretical, abstract or practical knowledge of physical and natural phenomena:

States problems and frames questions which are capable of yielding significant facts, theories, laws and concepts, and tests hypotheses through observation, investigation or experimentation.

Scientists are classified according to the discipline in which the individual is most active, such as chemistry, physics, geology, meteorology, geography, metallurgy, agriculture, zoology, botany and pharmacology.

02-380 SQUAD MAN/WOMAN (any ind.)

A term used to describe a worker who is trained in all phases of manufacturing within a specific industry, through a company-oriented training program to identify and develop supervisory and executive talent in individuals:

Substitutes for absentees, as needed, to keep departments fully-manned in emergencies. Conducts assigned studies in areas of specialized training for production problem identification, analysis, documentation and preparation of reports. Investigates and studies alternate methods and procedures and, upon approval, institutes and conducts programs to modify existing production procedures. Participates as a member of a team of specialists to inaugurate production with new installations.

Squad men/women are normally designated by the industry in which they work, and are classified in the appropriate supervisor; foreman/woman or managerial unit group according to work performed.

02-410 TECHNICIAN (prof. & tech., n.e.c.)

A term used to describe a worker who performs a limited number of technical functions in a physical science, life science or engineering specialization, primarily in relation to installation, operation and maintenance, quality control, production planning or biological testing and analysis activities, using a basic knowledge of specific scientific, mathematical or engineering and drafting design principles and practices:

Interprets work-order assignments, selects and adapts standard procedures, techniques and equipment and establishes work sequence. Takes, prepares, marks, measures or weighs test materials, or samples. Sets up scientific equipment and conducts experiments, tests and analyses, or constructs, installs, maintains, repairs, calibrates or modifies industrial or other equipment. Makes calculations and prepares charts, graphs and other supporting data for reports.

Reference should be made to the following unit groups for classification possibilities of technologists and technicians: 2117, PHYSICAL SCIENCES TECHNOLOGISTS AND TECHNICIANS; 2135, LIFE SCIENCES TECHNOLOGISTS AND TECHNICIANS; 3156, MEDICAL LABORATORY TECHNOLOGISTS AND TECHNICIANS; 3155, RADIOLOGICAL TECHNOLOGISTS AND TECHNICIANS; 3157, DENTAL HYGIENISTS, ASSISTANTS AND TECHNICIANS; 2165, ARCHITECTURAL AND ENGINEERING TECHNOLOGISTS AND TECHNICIANS and 2353, TECHNICIANS IN LIBRARY, MUSEUM AND ARCHIVAL SCIENCES. Other technicians are classified in the same unit group as the worker assisted, or according to work performed. Workers who directly assist another or other workers at the professional and managerial levels are designated as ASSISTANTS provided that they perform essentially DATA- and PEOPLE-related functions. Assistants frequently require formal training in the occupational specialization and their functions are clearly subordinate to those of the worker assisted. Those workers who perform inspecting and testing functions at levels of complexity higher or lower than those specified for technologists and technicians may be classified in unit groups for scientific and engineering, or inspecting and testing occupations respectively.

02-420 TECHNOLOGIST (prof. & tech., n.e.c.)

A term used to describe a worker who performs a variety of technological functions in a physical science, life science or engineering specialization, primarily in support of research, development and design activities, using knowledge of scientific, mathematical or engineering and drafting design principles and practices:

Assists scientists, engineers and other technical workers in developing research methods and equipment, and designing and developing products, systems, processes and industrial equipment. Obtains or prepares estimates of time and material cost for research tests, analyses and experiments or for work projects or processes. Sets up scientific equipment and conducts experiments, tests and analyses. Diagnoses complex equipment or process malfunctions, and production or test problems, and carries out corrective action. Interprets and evaluates, at a

level below that of the engineer or scientist, test and other data, and prepares reports and recommendations based on findings.

Reference should be made to the following unit groups for classification possibilities of technologists and technicians: 2117, PHYSICAL SCIENCES TECHNOLOGISTS AND TECHNICIANS; 2135, LIFE SCIENCES TECHNOLOGISTS AND TECHNICIANS; 3155, RADIOLOGICAL TECHNOLOGISTS AND TECHNICIANS; 3156, MEDICAL LABORATORY TECHNOLOGISTS AND TECHNICIANS and 2165, ARCHITECTURAL AND ENGINEERING TECHNOLOGISTS AND TECHNICIANS. Other technologists are classified in the same unit group as the worker assisted, or according to work performed. Workers who directly assist another or other workers at the professional and managerial levels are designated as ASSISTANTS provided that they perform essentially DATA- and PEOPLE-related functions. Assistants frequently require formal training in the occupational specialization and their functions are clearly subordinate to those of the worker assisted. Those workers who perform inspecting and testing functions at levels of complexity higher or lower than those specified for technologists and technicians may be classified in unit groups for scientific and engineering, or inspecting and testing occupations respectively.

02-430 TESTER (any ind.)

A term used to describe a worker who conducts routine tests in a laboratory or at a test bench on materials, components, machines or equipment to determine physical or chemical characteristics, or to verify conformity to specifications or functional standards, by performing any combination of the following duties:

Takes, prepares, marks, measures or weighs various samples, prior to conducting tests. Tests materials to determine physical or chemical characteristics. Tests electric or electronic components and equipment to verify conformity to specifications, using various electric or electronic testing equipment. Operates machines or equipment to test performance, and makes routine adjustments as required. Records test results. Marks approval on acceptable units, and returns defective units for reworking.

Testers are normally identified according to material or unit tested. Typical titles are: 8256-118, PULP TESTER (pulp & paper); 8336-138, SPRING TESTER (mach., weld. & forg.; metal fab., n.e.c.). Testers in the fields of processing, machining, fabricating and assembling materials, goods or products are normally classified in unit groups for INSPECTING, TESTING, GRADING, AND SAMPLING OCCUPATIONS. Those workers who perform a number of technical functions including testing at levels of complexity higher than that specified for testers may be classified in unit groups for scientific and engineering, or technologist and technician occupations.

02-450 WORKING PROPRIETOR (any ind.)

A term used to describe a worker who operates an establishment, on own behalf or in partnership:

Performs duties as described under the master titles, 01-090 GENERAL MANAGER (prof. & tech., n.e.c.); 01-170 MANAGER (prof. & tech., n.e.c.) or 01-180 MANAGING SUPERVISOR (any ind.), depending upon size and complexity of organization operated. When operating a small establishment, performs some or all of the duties of the workers.

Working proprietors are normally designated according to merchandise or services offered for sale, type of establishment or business operated, or professional, technical, craft or service function exercised. Working proprietors in sales and services who perform duties as described under the master title, 01-180 MANAGING SUPERVISOR (any ind.) are classified in the supervisor unit groups in Major Group 51, Sales Occupations and 61, Service Occupations, respectively. Working proprietors in sales and services who perform duties as described under the master titles, 01-090 GENERAL MANAGER (prof. & tech., n.e.c.) and 01-170 MANAGER (prof. & tech., n.e.c.) are classified in Major Group 11, MANAGERIAL, ADMINISTRATIVE AND RELATED OCCUPATIONS. Working proprietors found outside of Major Group 51, 61 and 11, are classified in the appropriate supervisory unit group of an appropriate minor group, or in the workers' unit group, if a supervisory unit group does not exist.

TRANSPORT EQUIPMENT OPERATING OCCUPATIONS

This major group includes occupations concerned with operating transport equipment such as, aircraft, trains, ships, trucks and buses to move freight and passengers. Occupations engaged in direct support activities which are an integral part of the transportation of passengers and cargo are also classified in this major group. Occupations concerned with operating pipelines to convey materials are classified in Unit Group 9537 – PUMPING AND PIPELINE EQUIPMENT OPERATING OCCUPATIONS. TRANSPORT EQUIPMENT OPERATING OCCUPATIONS are classified in the following minor groups:

- 911 Air Transport Operating Occupations
- 913 Railway Transport Operating Occupations
- 915 Water Transport Operating Occupations
- 917 Motor Transport Operating Occupations
- 919 Other Transport and Related Equipment Operating Occupations, n.e.c.

911-AIR TRANSPORT OPERATING OCCUPATIONS

This minor group includes occupations concerned with piloting, controlling, and navigating aircraft to transport passengers and cargo, conduct test flights, aerial surveys, patrols or spraying services; and providing direct support to air transport operations such as, scheduling crews and flights, controlling and communicating with aircraft, and servicing aircraft with fuel and commissary supplies. Instructors of flight crews and ground crews are classified in Unit Group 2797, INSTRUCTORS AND TRAINING OFFICERS, N.E.C. AIR TRANSPORT OPERATING OCCUPATIONS are classified in the following unit groups:

- 9110 Supervisors, Air Transport Operating Occupations
- 9111 Air Pilots, Flight Officers and Flight Engineers
- 9113 Air Transport Operating Support Occupations
- 9119 Air Transport Operating Occupations, n.e.c.

9110-SUPERVISORS, AIR TRANSPORT OPERATING OCCUPATIONS

This unit group includes occupations as described under master title, 01-250 SUPERVISOR; FOREMAN/WOMAN (any ind.), concerned with supervising and co-ordinating activities of workers engaged in providing direct support to air transport operations.

crews and aircraft, controlling air traffic during take-off, landing and en route, communicating with aircraft and operating navigational aids and providing ramp services, (Unit Group 9113):

Performs duties as described under master title, 01-250 SUPERVISOR; FOREMAN/ WOMAN (any ind.).

DPT: 1 3 8

9110-114 SUPERVISOR, AIR PILOTS, FLIGHT OFFICERS AND FLIGHT ENGINEERS (air trans.)

Supervises and co-ordinates activities of workers engaged in piloting rotary and fixed wing aircraft, (Unit Group 9111):

Performs duties as described under master title, 01-250 SUPERVISOR; FOREMAN/ WOMAN (any ind.).

9110-110 SUPERVISOR, AIR TRANSPORT OPERATING SUPPORT OCCUPATIONS (air trans.)

Supervises and co-ordinates activities of workers engaged in providing direct ground support to air transport operations such as, scheduling

DPT: 1 3 8

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9110-199 OTHER SUPERVISORS, AIR TRANSPORT OPERATING OCCUPATIONS

This residual group includes supervisors of air transport operating occupations not presently classified in Unit Group 9110.

9111-AIR PILOTS, FLIGHT OFFICERS AND FLIGHT ENGINEERS

This unit group includes occupations concerned with piloting fixed wing airplanes and helicopters to carry out a variety of tasks; establishing and directing course of aircraft in flight, following visual or instrument flight rules; and inspecting aircraft systems and equipment prior to flight, observing instruments during flight, and performing in-flight adjustments and repairs.

9111-110 TEST PILOT (air trans.)

Pilots aircraft for test flights on programs to evaluate performance or confirm airworthiness and ensure correct functioning of airplane, engine(s) and equipment:

Consults with design, engineering, production or other authorities within organization to determine requirements of proposed tests and develops flight test schedules accordingly. Reviews weather forecasts and prepares flight plan to include specified tests. Briefs flight crew and completes preflight check of aircraft. Starts engine(s) and checks functioning of aircraft controls, engine(s) and equipment. Obtains clearances by radio from controllers and completes pre-takeoff checks. Manipulates flight controls to guide airplane for takeoff, during flight and for landing. Performs planned tests to determine characteristics such as, aircraft handling while taxiing and in flight, stability and control, fuel consumption and performance of equipment. Observes aircraft instruments during flight and checks recordings of test instrumentation to evaluate performance of aircraft, systems and ancillary equipment. Prepares reports of test results and makes recommendations for modifications, adjustments or replacement of components. May test fly newly designed aircraft to determine if airplane operates according to design standards, or may fly new and overhauled production line aircraft for airworthiness tests or acceptance checks for user, or may operationally test new kinds of equipment, such as navigation aids and radar.

GED: 5 SVP: 8 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-112 PILOT, GENERAL AVIATION (air trans.)

Pilots fixed wing aircraft on variety of flights to provide air transportation or other services for customers:

Reviews weather forecasts and current flight information such as, type and availability of navigational aids and landing procedures at destination. Determines number of passengers or cargo weight and fuel required for trip. Prepares flight plan specifying elements such as, route, altitudes to be flown and times of departure and arrival. Completes preflight check of aircraft and equipment, visually inspecting exterior of airplane, and verifying seating of passengers and security of cargo. Starts engine(s), confirms satisfactory functioning of

equipment and controls, and taxis aircraft toward takeoff position. Obtains instructions and clearances by radio from controllers and completes pre-takeoff checks. Manipulates flight controls to guide airplane during takeoff, in flight and for landing. Assimilates data from aircraft instruments and radio communications during flight. Directs airplane according to flight plan, following current air navigation and traffic control procedures. Obtains landing clearance and lands aircraft at destination. Helps to unload passengers and cargo. Closes flight plan and records data such as, duration of flight and fuel consumed. May fly from unimproved or isolated airstrips or from snow or water using airplane fitted with skis or floats.

GED: 5 SVP: 7 PA: M 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-114 PATROL PILOT (air trans.)

Pilots aircraft over pipelines, power transmission lines or communications towers to check for signs of damage, or over forest areas to locate and report outbreak of fires:

Performs duties similar to those of **9111-112 PILOT, GENERAL AVIATION** (air trans.) while conducting line inspections or forestry patrols. Examines instructions for patrol and determines flight route, duration, load and fuel required. Assesses weather and other conditions and prepares flight plan in accordance with current regulations. Pilots airplane over pipelines, power- or communications-transmission lines and towers, observing terrain below to detect leaks, breaks, washouts or other damage. Flies over designated forest areas searching for fire starts. Reports by radio nature of damage or incidents observed, specifying location on grid map or by other position reporting techniques. Communicates by radio with forestry headquarters to report details of fire starts and with other patrol aircraft or water bombers when directed to co-ordinate forest fire fighting efforts. May conduct aerial photography surveys or assist in fish planting, wildlife surveys or other wilderness management programs.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-118 AIRLINE CAPTAIN (air trans.)

Pilots airplane and commands crew during flight to provide safe, comfortable and efficient transportation of passengers, mail and freight:

Prepares for forthcoming flight by reviewing flight plan received from dispatcher. Checks weather forecasts along proposed route, verifies fuel required and evaluates other elements of plan before departure. Resolves alterations in flight plan with dispatcher. Briefs flight crew. Performs preflight checks of aircraft and equipment on boarding airplane, assisted by first officer or second officer. Starts engines and verifies satisfactory functioning of aircraft systems and controls. Communicates by radio with controllers to obtain clearances and instructions. Taxis airplane to takeoff position and completes preflight checks. Manipulates flight controls to guide airplane during takeoff, while in flight, and for landing at destination. Assimilates information displayed on panel instruments or received during radio communications and maintains specified altitude, airspeed and heading according

to flight plan and approved procedures. Monitors operation of aircraft systems and makes appropriate adjustments to equipment. Directs first officer to take over control of aircraft for specific periods. Supervises work of crew, giving instructions and making decisions in response to changing conditions. Obtains approach clearance when nearing destination and completes landing, following set procedures. Taxis airplane to ramp, shuts down engines and turns off equipment. Closes flight plan, recording flight times and other specified data.

GED: 5 SVP: 8 PA: L 4 5 6 7 8 EC: 1 5 DPT: 2 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
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9111-119 FIRST OFFICER (air trans.)

Assists pilot in operation of airplane to provide safe, comfortable and efficient transportation of passengers, mail and freight: Assists 9111-118 AIRLINE CAPTAIN (air trans.) to conduct flight, acting as second-in-command of aircraft and crew while on flight duty. Performs specified preflight checks of airplane and equipment on boarding aircraft. Monitors operation of engines, instruments, equipment and systems during start-up and when in flight, in accordance with current procedures and instructions. Communicates by radio with appropriate air traffic control units, company ground support communicators or other aircraft as directed by captain. Maintains watch for other aircraft to avoid collisions. Takes over flight controls and pilots airplane when directed to relieve captain for specified periods. Performs routine post flight checks on engine shutdown at termination of flight.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-122 EXECUTIVE PILOT (air trans.)

Pilots aircraft to fly company officials and customers to various destinations:

Performs duties similar to those of 9111-112 PILOT, GENERAL AVIATION (air trans.) while providing air transportation services for employer. Reviews instructions specifying destination, departure time, number of passengers or other information, and requirements for return flight. Verifies or supervises servicing of aircraft for trip, and arranges for in-flight meals before departure. Checks weather forecasts and other current flight information pertaining to route. Prepares and files flight plan. Supervises loading of aircraft. Pilots aircraft to destination according to flight plan and approved air navigation and traffic control procedures. Disembarks passengers and confirms arrangements for return flight. Maintains log books and other flight records.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 DPT: 2 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
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9111-126 HELICOPTER PILOT (air trans.)

Pilots helicopter to transport passengers and freight: Receives instructions from dispatcher or client, or examines work order specifying details of job. Determines weight of passengers, cargo and fuel required and adequacy of fuel supply at work site if in remote location. Reviews weather information from meteorological office and prepares flight plan for trip to work site. Completes preflight check of helicopter and equipment and verifies security of load. Starts engine(s) and checks functioning of equipment and flight controls. Pilots helicopter to work location following current air navigation and air traffic control procedures. Consults with client and plans operations at work site by considering variables such as, size and weight of load, space for manoeuvring helicopter, limitations of helicopter, and lifting technique to be used. Assesses local weather conditions and wind speed and direction relative to task at hand. Pilots loaded helicopter to destination, using special helicopter flying techniques and air traffic control clearances, when required. Inspects aircraft and arranges for maintenance inspections as specified. Maintains log of flying time and records of fuel used and work completed.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-128 PILOT (military)

Pilots Canadian Forces transport aircraft, helicopters, fighter interceptors, observation and anti-submarine warfare aircraft: Performs duties as described under master title, 01-320 OFFICER (military). Pilots aircraft to transport equipment, supplies and personnel. Pilots warfare aircraft to perform tactical and other missions. Operates aircraft communications, armament and fire control systems. Participates in selection, development, design, testing and evaluation of new aerospace equipment. Assists in formulation of strategic and tactical plans, policies and training standards. Performs command, staff and training duties.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-130 AERIAL SURVEY PILOT (air trans.)

Pilots airplane at specified altitudes and airspeeds, following designated flight lines to survey areas of earth's surface for geographic mapping, ice surveillance, atmospheric sampling, remote sensing or other applications:

Examines survey specifications for flight and determines routing, duration and fuel required. Assesses weather and other conditions, prepares flight plan in accordance with current regulations, and briefs flight crew. Starts engine(s) and manipulates controls to guide airplane during takeoff, in flight and for landing. Flies airplane over area to be surveyed, adhering to flight plan and air traffic control procedures. Uses navigational aids such as, inertial guidance system, drift sight and photo mosaics to position aircraft over survey flight lines. Adjusts flight controls or directs co-pilot to hold airplane on course and in level flight to ensure correct line overlaps and prevent distortions in photogrammetric measurements or other data. Logs

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flight data such as, altitude, duration and fuel consumed, and information pertaining to performance of survey equipment.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
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9111-134 SPRAY PILOT (air trans.)

Pilots airplane or helicopter equipped with spraying equipment to make aerial applications or distributions from low altitude of pesticides, herbicides, fertilizers or seeds over agricultural lands or forests:

Reviews instructions regarding services required and areas to be treated. Arranges for warning signals to be posted, and for notification of adjacent farmers about impending spraying activity. Directs loading of aircraft. Starts engine and manipulates controls to guide airplane during takeoff, in flight and for landing. Flies aircraft over area to become acquainted with obstacles or hazards such as, turbulence, power lines or hills. Pulls lever or moves switches to spray or dispense materials, observing ground markers or flags and helper, or utilizes automated flagging system and cockpit instruments to prevent overlaps or gaps in application. May specialize in particular type of agricultural spraying, or fly aircraft engaged in forestry protection programs.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 6 DPT: 2 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 2 2 1 2 3 2 3 3 3 4	1 9	1 8 9 0

9111-136 SECOND OFFICER (air trans.)

Assists pilot by monitoring operation of engines, consumption of fuel and functioning of aircraft systems during flight:

Assists 9111-118 AIRLINE CAPTAIN (air trans.) and 9111-119 FIRST OFFICER (air trans.) in operation of applicable types of aircraft, acting as third-in-command while on flight duty. Examines log books and maintenance reports to ensure essential mechanical work has been completed before flight. Oversees fueling operations. Performs specified checks on aircraft and equipment on boarding and assists pilots in preflight cockpit checks. Observes instrument panel indicators during flight to check operation of engines and equipment. Computes and records rates of fuel consumption and makes in-flight adjustments as directed by captain. Monitors functioning of aircraft electrical, hydraulic, pressurization, heating and air-conditioning systems. Records details of malfunctioning systems or components for rectification by ground maintenance personnel. Performs specified post flight checks at termination of flight.

GED: 5 SVP: 7 PA: L 4 5 6 7 8 EC: 1 5 DPT: 2 6 3

APT.	INT.	TEMP.
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9111-138 NAVIGATOR (air trans.)

Establishes position and directs course of airplane in flight, using electronic navigational aids, celestial observation, and dead reckoning: Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9111-142 AIR NAVIGATOR (military)

Establishes position and directs course of Canadian Forces aircraft: Performs duties as described under master title, 01-320 OFFICER (military). Fixes position of aircraft, using charts, maps, compass, sextant, plotting instruments, slide rules, radio beams, beacons and homing devices. Advises pilots of course alterations to compensate for atmospheric changes or compass error. Conducts air/ground voice communications. Operates airborne sensor devices and armament and fire control systems. Manages airborne electronic systems to facilitate collection, correlation, comparison and analysis of data from air, sea and land sources. Co-ordinates and directs course of land, sea and air forces in execution of tactical role. Participates in selection, development, design, testing and evaluation of aerospace equipment. Fills training, operational and administrative positions for which navigators' expertise is required.

GED: 5 SVP: 6 PA: S 4 5 6 7 EC: 1 5 DPT: 1 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 2 2 1 2 3 2 3 3 3 4	1 9	1 8 0 9

9111-199 OTHER AIR PILOTS, FLIGHT OFFICERS AND FLIGHT ENGINEERS

This residual group includes air pilots, flight officers and flight engineers not presently classified in Unit Group 9111.

9113-AIR TRANSPORT OPERATING SUPPORT OCCUPATIONS

This unit group includes occupations concerned with providing direct ground support services to air transport operations. Activities include: scheduling crews and aircraft; controlling aircraft traffic during takeoff, landing and enroute; communicating with aircraft and operating navigational aids; providing pilots with preflight information; and servicing aircraft, processing baggage and providing other ramp services. Flight Attendants are classified in Unit Group 6145, TRAVEL AND RELATED ATTENDANTS, EXCEPT FOOD AND BEVERAGE. Occupations concerned with repairing aircraft are described in Unit Group 8582, AIRCRAFT MECHANICS AND REPAIRERS.

9113-110 AIR-TRAFFIC CO-ORDINATOR (air trans.)

Co-ordinates and controls the movement of air traffic operating under Instrument Flight Rules (IFR) within and between designated sectors and airspaces to provide maximum separation and safety for aircraft: Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9113-114 FLIGHT DISPATCHER (air trans.)

Plans and authorizes airline flights over assigned routes in accordance with current regulations to ensure safe, efficient and economical flight operations are undertaken:

Analyzes information from weather system charts and forecasts and reports of wind conditions and temperatures before preparing flight plans for upcoming flights. Assesses aircraft operating characteristics, load, weather conditions and fuel required for flight. Determines routes to be taken and identifies alternate airports, flight altitudes, speeds, times and related factors to be considered. Briefs flight crews on expected weather conditions and status of navigational facilities and airports before takeoff. Furnishes flight plans to crews and co-signs flight authorizations with aircraft captains. Monitors en route progress of flights dispatched and participates, as required, in communications with aircraft during flight. Delays or cancels flights if unsuitable conditions prevail. Compiles current meteorological information and air traffic control or other data used to plan and conduct flights to company destinations. Prepares log of flights, delays and cancellations and records reasons for changes in flight plans. May operate teletype or computer terminal to receive or communicate weather data, air traffic or other information.

GED: 4 SVP: 8 PA: S 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 2 3 3 3 3 4 4 4 5 4	2 9	1 4 9

9113-118 AIR-TRAFFIC CONTROLLER (air trans.)

Controls air traffic to provide for safe and efficient movement of aircraft within assigned airspace, and directs moving aircraft and service vehicles at airports:

Responds to radio calls from aircraft, issues takeoff and landing instructions and provides information such as, runway in use, wind speed and direction, ceiling and visibility, altimeter setting, taxiing instructions, and pertinent data about other aircraft operating in vicinity. Issues air traffic control clearance for aircraft operating under Instrument Flight Rules (IFR). Relays meteorological, navigational and other information to pilots. Transfers and accepts control of departing and arriving flights, to and from terminal control radar unit, using automated communication equipment. Maintains radio and telephone contact with adjacent control centres and co-ordinates movement of IFR flights into adjoining control areas and zones. Relays air traffic information such as, altitude, course and expected time of arrival to other controllers monitoring airways and aircraft. Determines procedures and time for altitude changes to prevent collisions and excessive traffic buildup in one sector. Monitors operation of radio aids to navigation and notifies pilots of availability of facilities. Controls movement of aircraft operating in vicinity of airport by using visual references, radar monitors and radio communications equipment. Manipulates switches to operate airport lighting systems and observes lighting status panel to verify functioning of equipment. Alerts airport emergency services, or reports lost aircraft to search and rescue organization by radio or telephone when aircraft are experiencing difficulties. May provide on-the-job instruction in air-traffic control procedures to junior personnel.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: I DPT: 1 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 2 3 2 3 3 4 4 4 5 4	2 9	1 8 9 0

9113-120 AIR-TRAFFIC CONTROL OFFICER (military)

Co-ordinates and controls movement of Canadian Forces air traffic operating within and between designated sectors and airspaces:

Performs duties as described under master title, 01-320 OFFICER (military). Accepts and routes flight plans using radiophone, telephone or intercom. Maintains file of flight plans for aircraft until completion of flight. Provides pilots with meteorological, navigational and other information such as, position of beacons and available landing fields. Issues landing and takeoff instructions, including data on other aircraft operating in vicinity. Transfers control of departing flights and accepts control of arriving flights. Controls cross-runway movement of security and maintenance vehicles, using radio. Instructs junior personnel in air-traffic control procedures. Directs or assists in directing planning, co-ordination and execution of search and rescue operations.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: I DPT: 1 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 2 3 2 3 3 4 4 4 5 4	9 2	1 8 9 0

9113-122 AIRLINE RADIO OPERATOR (air trans.)

Transmits and receives messages between station and aircraft by radiotelephone, or between other ground stations by teletype or radiotelephone:

Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9113-124 STATION AGENT (air trans.)

Performs variety of duties pertaining to flight servicing and ramp operations, air cargo handling and load control, and provides communication services to aircraft and other ground stations of airline by radiotelephone or teletype:

Compiles load control information such as, number of passengers, type of cargo and weight, destination, aircraft fuel load and other factors. Consults charts or uses computer to establish allowable weights and distribution of load in aircraft and ensures limits are not exceeded. Prepares flight cargo plan and sends plan to ramp service department for loading of aircraft according to specifications. Records cargo information on manifest forms and teletypes data to flight destination(s). Receives, transmits, relays and logs messages to and from aircraft and between stations concerning flight movements, arrival and departure times, number of passengers, reservations and other airline operation information, using radiotelephone and teletype equipment. Establishes telephone connection between radio and telephone equipment when primary communication system fails to provide direct contact between operational controllers and aircraft. Supervises other operational personnel of station, liaises with flight dispatchers and performs sales functions, as required.

GED: 4 SVP: 7 PA: S 4 5 6 EC: I DPT: 2 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 2 4 4 4 5 5	2	5 0

MAJOR GROUP 91

9113-126 SCHEDULE ANALYST (air trans.)

Prepares flight schedules for airline to optimize air transportation services and utilization of aircraft within company fleet:

Monitors performance of routes in system. Analyzes viability of existing schedules or projected programs by assessing competition, load factors, aircraft utilization, continuity of services, connections and other elements. Studies movements of company and off-line aircraft to improve schedules and co-ordinate flight arrival and departure times at specific locations. Allows time for aircraft maintenance, transit and turnarounds, and for crew rests or layovers when developing schedules. Prepares schedule changes and responses to support recommended changes to existing timings, or for introduction of new flights. Assesses availability of aircraft within fleet for use in charter work or for other commercial opportunities beyond programmed needs. May direct activities of workers involved in compiling schedules and reports.

GED: 4 SVP: 6 PA: S 5 6 EC: I DPT: 2 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 2 4 4 4 5 5	2	0

9113-127 FLIGHT SERVICE SPECIALIST (air trans.)

Provides airplane pilots with flight information services essential to aviation safety:

Maintains aviation weather data and flight safety information displays to ensure current data is available. Provides preflight briefings concerning routes, weather, navigation aids, radio frequencies, terrain, airport conditions and related data to assist pilots in preparation of flight plans. Checks flight plans for completeness and accuracy. Relays flight plans for Instrument Flight Rules (IFR) flights to air traffic control unit for implementation. Processes accepted Visual Flight Rules (VFR) flight plans after departure of aircraft and sends flight data by radio or teletype to appropriate destinations. Responds to radio calls from aircraft preparing for takeoff or for landing and supplies information such as, current weather conditions, wind speed and direction, altimeter setting, ceiling and visibility, and presence of local air traffic. Supports air traffic control operations by relaying radio requests such as, for flight clearances, arrival and departure information and position reports. Monitors position of aircraft operating under VFR and reports overdue aircraft for search and rescue action, when required. Monitors radio frequencies assigned for use by aircraft in emergencies and provides assistance, when necessary. Provides direction finding services, homing and related assistance to disoriented aircraft. Checks operation of terminal and en route navigational aids and initiates corrective measures for malfunctioning equipment. Observes and analyses local weather conditions, records barometric pressure, temperatures, winds and other weather criteria and transmits data by radio or teletype to central agency. May provide radio control for ground servicing vehicles at airports.

GED: 4 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 1 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 2 4 4 4 5 5	2 9	0

9113-128 TRAFFIC TECHNICIAN (military)

Plans and arranges movement of Canadian Forces personnel, equipment and material:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN** (military). Packs and weighs aircraft shipments. Operates material handling equipment such as, forklifts, towing vehicles and self-propelled passenger handling equipment to load and unload helicopters and other aircraft. Turns controls and operates switches to operate aircraft ramp and door control systems. Operates remote computer terminals of automated reservation system to process reservations. Prepares and checks passenger manifests and weighs and checks baggage at military air terminals. Contacts military or civilian service agencies to arrange for special land, sea and air transportation. Compiles customs documentation and prepares weight and balance clearances for aircrafts. Arranges for movement of furniture and effects of military personnel, and compiles and processes necessary documentation. Drives vehicles up to 3 tons capacity. Establishes and monitors operations in landing zones, drop zones and extraction zones in support of air supply operations. Rigs cargo loads of ropes, slings and nets to enable helicopters to carry external loads. Operates office machines such as, typewriters, calculators, duplicating machines and postage meters.

GED: 3 SVP: 6 PA: M 5 6 7 8 EC: B 6 DPT: 1 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 4 3 4 3 4 4	9 2	1 0

9113-129 AIR-TRAFFIC CONTROL ASSISTANT (military)

Regulates movement of aircraft and ground vehicles in manoeuvring areas of Canadian Forces aerodromes:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN** (military). Operates air-traffic control ground communication radios, air to ground two-way radios, and signal lights to give ground control directions and to relay information. Receives, interprets, records and relays flight plan information to appropriate Air-Traffic Control and agency. Records, decodes and encodes aviation weather reports, terminal forecasts and upper wind forecasts, and disseminates information to air and ground crews. Places emergency runway lights and marks temporary obstructions in manoeuvring areas with warning lights. Drives vehicles up to 1 ton in size when inspecting runways and other manoeuvring areas. Records and maintains aircraft movement data, amends aeronautical and service publications, and drafts and processes correspondence.

GED: 3 SVP: 6 PA: S 4 5 6 7 8 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 3 4 4 4 4 4	9 2	1 0

9113-130 FLIGHT DISPATCH ASSISTANT (air trans.)

Compiles and prepares aircraft dispatch data, weather and position reports and related information in airline dispatch office:

Assists **9113-114 FLIGHT DISPATCHER** (air trans.) by collecting and compiling, either manually or electronically, relevant data such as, times of arrival of aircraft at check points and scheduled stops, departure times, fuel requirements, takeoff and landing weights and other flight information. Evaluates weather conditions, flight plans, en route delays and other data to anticipate off-schedule arrivals and departure. Submits data to dispatcher for approval. Notifies operational support and customer relations departments of flight delays and irregularities. Prepares messages concerning flights for transmittal by

radio, teletype or telephone to other stations on company routes. Reproduces copies of reports, charts and instructions for posting on flight crew bulletin board or distribution to pilots, and performs variety of other routine office tasks.

GED: 4 SVP: 4 PA: S 5 6 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 3 4 4 4 5 5	2	0

9113-131 BAGGAGE AGENT (air trans.)

Co-ordinates baggage handling activities at airline terminal to provide prompt deliveries to deplaning passengers:

Monitors sorting and dispatching of outbound baggage to departing aircraft. Checks flow and dispensing of inbound baggage being delivered to passengers on arrival at destination. Receives complaints from passengers regarding lost, mishandled, delayed or damaged baggage, and initiates recovery or corrective measures to deal with problems according to company policies. Obtains information from passengers and completes appropriate documents such as, lost and found reports, tracing forms, customs clearances, damage reports and forwarding instructions. Traces lost baggage by communicating with agents at other locations in airline system. Arranges for delivery to passengers of relocated items. May authorize limited expenditures to provide for emergency assistance to passengers.

GED: 4 SVP: 4 PA: M 3 4 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 3 4 4 3 4 4 4 5 5	2 3	0

9113-134 FLIGHT CREW SCHEDULER (air trans.)

Schedules assignments for members of airline flight and cabin crews: Compiles information about airline flight crews and cabin crews to facilitate selection of personnel for flights. Records data such as, qualifications and experience by aircraft and routes, time flown during regulatory period, rest periods, seniority, availability and personal preferences of individuals. Makes crew assignments to provide for economical and efficient use of staff in accordance with approved procedures, regulations and labour agreements. Responds to questions from crew members during crew check-ins regarding company requirements, procedures and regulations, personal considerations and related matters. Provides advice, information or assistance to crew members in areas of own functional control. Operates office equipment such as, computer terminal, teletype and calculator to store, obtain or process information. Maintains file system for crew records and documents.

GED: 4 SVP: 4 PA: S 5 6 EC: I DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 3 4 4 3 4 4 4 5 5	2 3	2 0

9113-138 STATION ATTENDANT (air trans.)

Services commercial aircraft at air terminal: Marshalls or tows aircraft to gate position for loading or unloading.

Positions passenger loading bridge or passenger stand and operates aircraft doors. Loads or unloads baggage, air freight and mail from cargo compartments, using cargo carts, container loaders and conveyors. Sorts and routes passenger baggage and other air cargo. Drives and operates ramp servicing vehicles and equipment including air-conditioning and ground power units, towing tractors, food service trucks, de-icer sprayers and lavatory servicing trucks. Cleans and prepares interior of aircraft for passengers before loading. Ensures aircraft is provisioned with food, beverages, water, lavatory items and cabin supplies before departure. Refuels and performs maintenance inspections on ramp equipment. May specialize in particular aspects of servicing such as, refuelling or towing aircraft, baggage and cargo handling and galley or cabin service.

GED: 3 SVP: 3 PA: M 2 3 4 5 6 7 EC: O 5 6 7 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 4 4 4 4 3 3 5	1 9 3	2 3

9113-142 AIRPORT OBSERVER-COMMUNICATOR (air trans.)

Observes and records weather conditions and provides information to airplane pilots at small northern community airports:

Makes periodic weather checks and records data such as, temperature, wind direction and velocity, precipitation and cloud conditions. Communicates by radio with aircraft entering vicinity of airport to provide current weather and runway information. Informs pilots of wind direction and velocity, altimeter setting, runway obstacles, snow accumulations, lighting unserviceabilities or other conditions. Provides weather and other preflight information, in person or by radio, to pilots of departing aircraft. Transmits current weather data by radio, teletype or telephone to central weather service and supplies weather advisories to local residents. Checks condition of airport buildings and runways and operation of facilities, and advises management of deterioration, hazards or malfunctioning equipment. May render first aid in emergencies.

GED: 3 SVP: 3 PA: S 4 5 6 EC: B DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 4 4 4 4 4 5 5	1 9 3	2 0

9113-199 OTHER AIR TRANSPORT OPERATING SUPPORT OCCUPATIONS

This residual group includes air transport operating support occupations not presently classified in Unit Group 9113.

9119-AIR TRANSPORT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with preparing portable bar units for airline flights, stocking aircraft with equipment and supplies required for in-flight passenger comfort and entertainment, and preparing and loading cargo on aircraft used for spraying, seeding and fertilizing operations.

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9119-110 LOAD CONTROL AGENT (air trans.)

Compiles load control information to ensure that allowable gross weight of aircraft is not exceeded and that cargo is safely distributed and balanced.

Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9119-114 AIRPORT SERVICE AGENT (air trans.)

Services and maintains aircraft, buildings and equipment at a small airport, performing any combination of the following duties:

Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9119-118 COMMISSARY AGENT (air trans.)

Requisitions meals and flight satchels, and prepares portable bar units for flight:

Assembles bar units to be embarked on flights by stocking units with alcoholic and other beverages according to requirements. Conducts inventories of incoming bar units from aircraft, balance cash and stock, and reports discrepancies. Requisitions in-flight meals from catering company by specifying menu code numbers and quantities required. Ensures airline receives credits for meals not delivered because of delayed or cancelled flights. Accepts and verifies delivery of commissary stock from suppliers. Issues supplies to workers engaged in assembling commissarial and other units used by cabin flight crews for comfort and entertainment of passengers. Performs administrative duties such as, recording expenditures and preparing reports of averages or shortages and monthly statistics. May direct activities of workers engaged in assembling supplies and preparing passenger cabin equipment, and monitor condition of kitchen facilities on aircraft.

GED: 3 SVP: 4 PA: L 3 4 5 6 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 3 5 4 3 4 4 4 5 5	1 3	0 Y

9119-122 AERIAL SPRAYING ASSISTANT (air trans.)

Mixes fertilizers, herbicides and pesticides, and loads mixtures into airplane in preparation for aerial distribution or application on predetermined sites:

Mixes fertilizers, herbicides and pesticides according to formulas. Dumps, pours or pumps materials into feed hopper or storage tank of airplane. Signals pilot when loading of airplane is completed. Performs various other tasks such as, transporting materials, recording supplies used and assisting in refuelling and servicing of airplane. May stand at edge of field and signal to pilot by flag or radio to mark flight passes and prevent skips and overlaps.

GED: 2 SVP: 3 PA: H 2 3 4 EC: O 6 7 DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 5 4 4 3 4 3 4 5	1 3	2 Y

9119-126 COMMISSARY ATTENDANT (air trans.)

Prepares aircraft passengers cabin equipment and assembles units of commissarial and other supplies used for in-flight comfort and entertainment of passengers:

Prepares flight kitchen, linen, pillows, blankets, crockery, cutlery and other cabin equipment for use by cabin flight crew. Assembles and prepares units of supplies such as, flight satchels, hampers, baby kits, first-aid kits, newspapers and magazines required in flight for passengers. Washes and cleans dishes, silverware and food trolleys. Load supplies onto carts and performs other duties in commissary room to assist commissary agent.

GED: 2 SVP: 2 PA: L 3 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 5 4 4 4 4 4 4 5	3 1	2 3

9119-199 OTHER AIR TRANSPORT OPERATING OCCUPATIONS

This residual group includes occupations in air transport operating not presently classified in Minor Group 911.

913-RAILWAY TRANSPORT OPERATING OCCUPATIONS

This minor group includes occupations concerned with transporting passengers and freight by operating and controlling the movement of trains; providing direct support to railway transport operations; signalling operational information to trains, stations, yards and rail traffic control towers; making up trains in freight yards; classifying freight; routing cars; and servicing rolling stock. These occupations are classified in the following unit groups:

9130 Foremen/women, Railway Transport Operating Occupations

9131 Locomotive Operating Occupations

9133 " Conductors and Brake Workers, Railway

9135 Railway Transport Operating Support Occupations

9139 Railway Transport Operating Occupations, n.e.c.

9130-FOREMEN/WOMEN, RAILWAY TRANSPORT OPERATING OCCUPATIONS

This unit group includes occupations, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in operating and controlling the movement of trains, providing direct support to railway transport operations, and co-ordinating activities of railroad station employees.

9130-110 FOREMAN/WOMAN, RAILWAY TRANSPORT OPERATING SUPPORT OCCUPATIONS (rail trans.)

Supervises and co-ordinates activities of workers engaged in providing direct support to railway transport occupations; such as, assigning crews to trains, making-up, dispatching and controlling train traffic, operating and controlling signals and safety equipment at stations and level crossings, and maintaining contact with trains and stations by radiotelephone, (Unit Group 9135):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.). May supervise workers engaged in a particular activity or area and be designated accordingly.

DPT: 1 3 8

9130-114 TRAINMASTER (rail trans.)

Supervises and co-ordinates activities of workers engaged in operating railway locomotives to transport freight and passengers, and moving locomotives within yards and servicing and repair areas, (Unit Groups 9131 and 9133):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.). May supervise workers engaged in a particular activity and be designated accordingly.

DPT: 1 3 8

9130-118 STATION MASTER (rail trans.)

Co-ordinates activities of railroad station employees and authorizes departure of train:

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.). Notifies employees of changes in arrival and departure times of trains, boarding track numbers and other information affecting passengers for announcement over public address system and for posting on callboard. Ascertain that shift workers and train crews report as scheduled and ensures replacements are available, if required. Supervises activities of clerical and administrative staff and passenger service personnel, such as ticket agents, baggage handlers and information clerks to ensure efficient and courteous service to clients. Authorizes departure of passenger trains after transfer of mail and baggage is completed. Delays departure of trains for arrival of connecting trains or if notified by train crew or yardmaster. Authorizes repair to station facilities, and supervises, or delegates supervision of custodial and maintenance workers. Investigates complaints of poor or discourteous service. Supervises security and safety measures within station limits. May

exercise control over collection and delivery of goods by vehicles, within station limits.

GED: 4 SVP: 8 PA: L 5 6 EC: I DPT: 1 3 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u> <u>5</u>	5	1 4 5

9130-199 OTHER FOREMEN/WOMEN, RAILWAY TRANSPORT OPERATING OCCUPATIONS

This group includes occupations, not elsewhere classified, as described under master title **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating the activities of workers engaged in railway transport operating activities and related occupations not presently classified in Unit Group 9130.

9131-LOCOMOTIVE OPERATING OCCUPATIONS

This unit group includes occupations concerned with operating railway locomotives to transport freight and passengers and to move locomotives within yards. Activities include: operating controls of locomotive; communicating by radiotelephone; interpreting train orders, signals and railway rules and regulations; and inspecting locomotive for adequate fuel supply and proper functioning of equipment.

9131-110 LOCOMOTIVE ENGINEER (rail trans.)

Operates locomotive to transport passengers and freight on railway. Synchronizes watch with that of train conductor and standard clocks. Inspects assigned locomotive unit(s). Tests electrical cables connecting controls of units, by isolating and testing each unit and operating controls from leading unit. Ensures ground relays are set, sand boxes and crankcases are topped up, and that air compressors contain sufficient oil for trip. Tests operation of heater boilers and ensures that there is sufficient fuel and water on board. Conducts brake tests to ensure that brakes of cars are operative from locomotive cab. Operates throttle, air brakes and other controls, and interprets train orders, block or semaphore signals, and railroad rules and regulations to drive locomotive safely and on schedule. Communicates with members of crew and traffic control personnel by radiotelephone to give and receive information or instructions concerning stops, delays or oncoming trains. Observes track to see that it is clear of obstacles. Inspects locomotive after run to detect damaged or defective equipment. Calls out road signals to other crew members for verification to avoid errors in interpretation. May prepare reports of accidents, unscheduled stops or delays.

GED: 4 SVP: 7 PA: L 4 7 8 EC: I 5 DPT: 3 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u>	9 1	0 Y

9131-114 YARD ENGINEER (rail trans.)

Operates diesel electric locomotive within yard of railway, industrial establishment, quarry or similar location, to switch railway cars for

MAJOR GROUP 91

loading and unloading, and making up and breaking up trains: Performs switching operations according to written switching orders or instructions received via radiotelephone from dispatcher or supervisor. Observes traffic signals in yard and operates locomotive in accordance with railway or company operating rules and regulations. Observes arm or lantern signals and communicates via radiotelephone with crew members to give and receive ongoing switching information. Moves controls to drive locomotive backward or forward, and to switch, couple and uncouple cars. Watches track for obstacles or improperly set switches. May inspect locomotive before and after operation, replenish fuel, sand and water supplies, and oil and grease moving parts.

GED: 3 SVP: 6 PA: L 4 7 8 EC: 1 5 DPT: 3 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 4 4 4 4 3 4 4	9 1	0 Y

9131-118 ENGINEER'S ASSISTANT (rail trans.)

Tends and maintains steam generator of heating system on board passenger train: Observes gauges to ensure system is operating safely and efficiently. Reports irregularities to engineer and follows instructions to correct malfunction. Performs routine maintenance tasks, using hand tools to service and lubricate generator. See also definition for term title, **02-160 HELPER (any ind.)**.

GED: 3 SVP: 4 PA: L 4 EC: 1 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 4 4 4 4 4 4 4	9 1 3	2 0

9131-122 HOSTLER (rail trans.)

Operates diesel electric locomotives to move them from servicing and repair areas to other locations in railway yard: Drives locomotive to designated area, by pushing and pulling levers to control movement of locomotive. Checks oil and air pressure gauges, ammeters, warning lights, and oil and water levels. Delivers locomotive to designated area after servicing and repair.

GED: 3 SVP: 4 PA: L 2 4 7 EC: B 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 4 4 4 4 3 4 4	9 1 3	2 Y

9131-199 OTHER LOCOMOTIVE OPERATING OCCUPATIONS

This residual group includes locomotive operating occupations not presently classified in Unit Group 9131.

9133-CONDUCTORS AND BRAKE WORKERS, RAILWAY

This unit group includes occupations concerned with directing the operation of passenger and freight trains en route; checking and maintaining efficiency of cars and equipment during a run; making and breaking up trains in railway or industrial yards; and collecting tickets from passengers. Occupations concerned with operating locomotive engines are classified in Unit Group 9131, LOCOMOTIVE OPERATING OCCUPATIONS. Sleeping-Car Conductors are classified in Unit Group 6130, SUPERVISORS, OCCUPATIONS IN LODGING AND OTHER ACCOMMODATION.

9133-110 CONDUCTOR, PASSENGER TRAIN (rail trans.)

Co-ordinates and supervises activities of train crew engaged in transporting passengers:

Reads train orders, timetable schedules and other instructions and informs crew of contents. Synchronizes watch with standard clock and with other crew members to ensure that departure time is in accordance with timetable. Communicates with locomotive crew by radiotelephone, lantern, whistle, or hand signals to give instructions. Collects tickets, fares or passes from passengers and prepares summarized reports of collections. Answers passengers' enquiries concerning train rules and regulations and timetable schedules. Announces names of stations to passengers. Ensures train is protected from collision with other trains during unscheduled or emergency stops. Directs train crew in inspecting air brakes, air hoses, couplings and journal boxes, and ensures that air conditioning, heating and lighting are regulated for safety and comfort of passengers. Prepares reports, at conclusion of run, to explain accidents or unscheduled stops or delays. May be engaged in transporting both passengers and freight.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: B 5 DPT: 1 3 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 4 3 4 4 4 4 4	2 1	4 0

9133-114 CONDUCTOR, ROAD FREIGHT (rail trans.)

Co-ordinates and supervises activities of train crew engaged in transporting freight:

Reads train orders, schedules, and other instructions, and informs crew of contents. Compares car listing with waybills for accuracy of route and destination. Synchronizes watch with standard clock and with members of train crew to ensure correctness of time. Communicates with locomotive crew by radiotelephone, lantern, whistle or hand signals to give or receive instructions or information concerning freight pick up and drop-off stops, or delays. Supervises pickup or removal of freight at wayside destinations. Ensures train is protected from collision with other trains during emergency or unscheduled stops. Ensures running inspections are made at frequent intervals and minor repairs of cars and mechanical equipment are made during run, in order that trains operate safely and efficiently. Records time of arrival and departure at all destinations. Prepares reports on any delays or accidents occurring during run. May inspect freight cars to ensure

seals are secured and intact, record number of each car and its corresponding seal number.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: B 5 DPT: 1 3 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 4 4 4 4 4	1	4 0

9133-118 CONDUCTOR, YARD (rail trans.)

Directs and supervises activities of switching crew engaged in making and breaking up trains at railway yard or industrial establishment: Acts upon switching orders received in writing, by radiotelephone or directly from Trainmaster. Directs crew in moving, spotting, switching, coupling and uncoupling cars. Keeps record of identification number of cars switched. Ensures adherence to special handling instructions.

GED: 4 SVP: 6 PA: L 5 6 7 EC: O 5 6 DPT: 1 3 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 4 4 4 4 4	1	4 0

9133-122 BRAKE WORKER, PASSENGER TRAIN (rail trans.)

Performs a variety of duties working as member of train crew engaged in transporting passengers: Inspects equipment such as, air conditioning, heating and lighting for serviceability, and interior of train for cleanliness. Checks storage of passengers' baggage in luggage racks above seats to avoid accidents. Patrols train during run to detect operational irregularities. Answers questions from passengers concerning train rules, station and timetable information. Adjusts controls to regulate heating, lighting and air conditioning for passenger comfort. Displays flags and signals in front and rear of train during unscheduled stops or in an emergency situation to warn oncoming trains. Assists in collecting tickets, fares and passes from passengers. Throws track switches to shunt cars during breakup of train. Signals locomotive crew to start and stop train when coupling and uncoupling cars. Makes minor repairs to couplings, air hoses and journal boxes, using hand tools, and reports equipment requiring major repair. Fills out forms including train orders and switch lists and prepares required reports. May assist in re-railing cars.

GED: 3 SVP: 4 PA: M 4 5 6 7 EC: B 5 6 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 4 4	3 2 1	2 0

9133-126 BRAKE WORKER, ROAD FREIGHT (rail trans.)

Performs a variety of duties working as member of train crew engaged in transporting freight: Prepares equipment required for run such as, signal lamps, flares, and tool kits. Inspects cars and checks air brakes, couplings and car wheel bearings prior to train run. Moves track switches to shunt cars. Operates hand brakes on cars shunted into sidings. Observes signals and communicates with other crew members when coupling or uncoupling cars. Watches for irregularities such as, smoking wheel-

bearing boxes, evidence of equipment dragging, or insecure load. Displays flagging equipment and warning lights while train is in motion, and during scheduled or emergency stops. Assists in loading and unloading freight on local and way freight runs. Makes minor repairs to couplings, air hoses, and wheel-bearing boxes. Reports equipment requiring major repairs.

GED: 3 SVP: 4 PA: M 2 3 4 5 6 7 EC: B 5 6 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 3 3 4	1 3	2 0

9133-130 BRAKE WORKER, YARD (rail trans.)

Works as member of yard crew engaged in switching cars for loading and unloading or making and breaking up trains in railway yard or industrial establishment:

Raises or lowers coupling levers to uncouple or couple cars according to oral or written instructions detailing cars to be switched and track assignment. Throws track switches and signals locomotive crew to move cars, using hand signals or radiotelephone. Climbs ladder of car and turns hand wheel to set brakes and control speed of car being shunted. Couples or uncouples air hoses when making up or breaking up trains. Checks that car couplings are secure and hand brakes are released.

GED: 2 SVP: 3 PA: M 2 4 5 6 7 EC: O 5 6 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 3 3 4	1 3	2 0

9133-199 OTHER RAILWAY CONDUCTORS AND BRAKE WORKERS

This residual group includes railway conductors and brake workers not presently classified in Unit Group 9133.

9135-RAILWAY TRANSPORT OPERATING SUPPORT OCCUPATIONS

This unit group includes occupations concerned with providing direct support to railway operations. Activities include: assigning crews to trains; making up, dispatching and controlling train traffic; operating and controlling signals and safety equipment; and maintaining contact with trains and stations, using a variety of communications equipment. RAIL TRANSPORT EQUIPMENT MECHANICS AND REPAIRERS are classified in Unit Group 8583 and TELEGRAPH OPERATORS are classified in Unit Group 9553.

9135-110 TRAIN DISPATCHER (rail trans.)

Co-ordinates railway traffic on specified section of railway system from centralized-traffic-control (c.t.c.) unit that electrically activates switches and signals:

Issues train orders and familiarizes self with scheduled runs, destinations, priorities and arrival and departure times. Operates and monitors c.t.c. console and interlocking equipment to locate trains and

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control train movements. Operates communication console to relay train delay and accident information received from train crews. Charts train movements on graph to estimate arrival times at specified points. Calculates and records train arrival and departure times, and estimated meets and passes to maintain message register. May transmit messages to freight offices or other points. May be designated according to type of rail transportation system.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: I DPT: 1 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 2 4 3 4 4 4 5 4	2 1	4 5 9

9135-114 CAR ASSIGNMENTS CLERK (rail trans.)

Assigns and dispatches cars to railway company terminals requesting railway passenger equipment:

Keeps record of movement and assignment of cars, using train schedules and movement charts. Schedules train crews to trains for trips and notifies them of assignments. Arranges for extra meal service when required to accommodate passengers. Confers with other railway departments to determine passenger volume and disposition of repaired cars. Informs ticket sales office of delays or other factors which may inconvenience passengers.

GED: 4 SVP: 6 PA: S 4 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 3 4 4 4 5 4	2 1	4 5 9

9135-118 CAR DISTRIBUTOR (rail trans.)

Controls distribution of railway freight equipment:

Advises train and switching crews on availability of railway freight equipment. Routes empty freight cars to designated locations or shippers according to railway requirement. Keeps records of all transactions.

GED: 3 SVP: 5 PA: S 5 6 EC: I DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 3 4 4 4 5 5	1 3	2 Y

9135-122 ENGINE DISPATCHER (rail trans.)

Assigns engines to locomotive crews for train runs or switching operations:

Receives and reads daily orders to determine operational requirements. Calculates equated tonnage ratings for motive power and assigns engines according to size and horsepower required for specific assignment. Keeps records of number and types of engines assigned,

available or in repair or service shops. Notifies operating personnel when engines can be delivered.

GED: 3 SVP: 5 PA: S 5 6 EC: I DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 3 4 4 4 5 5	1 3	2 Y

9135-126 CAR RETARDER OPERATOR (rail trans.)

Controls car retarder system and track switches from elevated tower to regulate speed of freight cars down hump incline and route cars onto designated tracks at railway classification yard:

Reads switching orders or list to ascertain routing of cars. Compares car with switching order to determine track to which each car should be routed. Observes lights on control panel that indicate if track switches are opened or closed. Notifies switching crew when to shunt cars and presses button on console that throws switch to route car onto designated track, or monitors automatic switching. Observes car as it coasts down incline of hump and presses button on console that activates retarder or monitors computer-controlled retarder that regulates speed of car as it reaches end of track or car to which it is to be coupled.

GED: 3 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 4 4 4 4 4 4 5 4	1 3 9	2 3 Y

9135-128 CAR CHECKER (rail trans.)

Verifies identity of freight cars of train in classification, or freight yards:

Records information, such as serial number, type of car, company name, date and time of arrival as cars enter classification yard. Examines door seals on cars to determine that seals have not been tampered with or broken. Verifies identity of cars in various sections of yard. Compares cars leaving yard with departure list and reports discrepancies.

GED: 3 SVP: 4 PA: L 4 7 EC: B DPT: 3 8 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 4 4 3 4 4 4 4 4	3 1	2 3

9135-130 TOWER OPERATOR, RAILROAD (rail trans.)

Regulates movement of equipment from tower to route traffic in railway yard or at switching point, following orders, train schedules and safety regulations:

Reads switching orders and schedules of inbound and outbound traffic to ascertain time trains will enter or leave yard, sequence of movement and tracks on which trains are to be routed, or receives switching instructions by radio. Observes approaching trains and moves switches

on control panel to set traffic signals and activate track switches that regulate traffic.

GED: 3 SVP: 4 PA: L 4 5 6 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 <u>4</u> 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 4 5 4	1 3 9	2 3 Y

9135-134 CREW SCHEDULER (rail trans.)

Schedules work for train crew or individual workers and maintains record of each worker's time:

Notifies workers of assignment by telephone and maintains record of crew assignments for each trip. Posts names of extra crew members, in order of seniority, on reserve list. Selects replacements from reserve lists and notifies replacements when regular crew members are absent. Keeps record of departure and return of crew or worker for each trip, recording total time worked and number of miles covered.

GED: 3 SVP: 3 PA: S 5 6 EC: I DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 <u>4</u> 4 <u>4</u> 4 <u>3</u> 4 <u>4</u> 4 5 5	1 3	2 3

9135-138 YARD CLERK (rail trans.)

Prepares switching orders for yard switching crews and performs a variety of clerical duties related to rail operations:

Prepares switching orders according to information received indicating location, disposition and number of cars to be switched for loading, unloading, make up and break up of trains. Relays orders to switching crew using intercom or portable radio. Maintains records of car movement and disposition and crew assignments and duties. Verifies sequence of cars in trains against advance consist. Performs various clerical duties such as filing documents, sorting mail and maintaining records of payments made for goods and services.

GED: 3 SVP: 3 PA: S 4 5 6 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 <u>4</u> 4 <u>4</u> 4 <u>3</u> 4 <u>4</u> 4 5 5	1 3	2 3 Y

9135-142 DISPATCH OPERATOR (rail trans.)

Copies train orders received from train dispatcher and hands them to freight conductor prior to departure of train:

Receives running instructions from train dispatcher by intercom, radio or telephone. Types or writes instructions on train order forms. Repeats instructions to train dispatcher to verify accuracy. Hands train orders to freight conductor prior to departure of train from classification yard. Records train departures and arrivals, crew

assignments and crew mileage. Issues and receives two-way-portable radios used by train crews. Records issue and receipt of such radios.

GED: 2 SVP: 3 PA: S 4 5 6 EC: I DPT: 5 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 4 5	1 3	2 3 Y

9135-146 TURNTABLE TENDER (rail trans.)

Tends railway turntable to turn locomotive or rolling stock around or to switch equipment from one track to another:

Starts, stops and controls direction and speed of turntable, using lever or other hand controls, to align turntable track with road track. Signals locomotive operator to drive locomotive or to push rolling stock on and off turntable. Applies foot brake to maintain turntable alignment with track. May perform other duties, such as refuelling locomotives, refilling sand boxes, inspecting tool chests and flag kits for completeness, and cleaning cabs of locomotives.

GED: 2 SVP: 2 PA: M 4 7 EC: O 5 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 4 5 <u>4</u> 4 <u>4</u> 5	1 3 9	2 3 Y

9135-150 LOCOMOTIVE ATTENDANT (rail trans.)

Watches unattended locomotives to ensure engines are kept running and services locomotives in railway yard:

Observes temperature and oil level gauges and compares readings with standard charts. Examines locomotives to detect oil or water leaks. Reports defects of variations to superior. Replenishes locomotive with fuel, lubricating oil and sand. Sweeps and cleans interior of locomotive.

GED: 2 SVP: 2 PA: M 4 EC: B 5 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 <u>4</u> 5 <u>4</u> 4 <u>4</u> 5	3 1	2 3 Y

9135-199 OTHER RAILWAY TRANSPORT OPERATING SUPPORT OCCUPATIONS

This residual group includes railway transport operating support occupations not presently classified in Unit Group 9135.

9139-RAILWAY TRANSPORT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with railway transport operations; such as, inspecting freight cars to ensure adherence to company regulations governing car handling and distribution, preparing records of train arrival and departure times, and checking industrial sidings to locate empty freight cars.

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9139-110 FREIGHT CAR SERVICE INSPECTOR (rail trans.)

Inspects freight cars in railway yards, terminals or stations to ensure adherence to company rules and regulations governing car handling and distribution:

Inspects empty freight cars for condition, cleanliness, correct classification and directs removal of defective cars from service for repair. Inspects handling and servicing of perishable freight cars to ensure adherence to regulations. Expedites return to service of cars carrying company-owned freight. Checks areas for empty foreign cars and authorizes movement to prevent additional per diem charges. Reviews conductor's signing reports for correct compilation and submission. Prepares weekly reports on handling of cars and perishable freight.

GED: 3 SVP: 5 PA: L 5 6 EC: B DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 <u>3</u> 3 4 4 4 4 5	1 3	0 2

9139-114 TRAIN CLERK (rail trans.)

Prepares records of train arrival and departure times and checks correctness of consist for train:

Records number of train and engine and precise time of departure or arrival. Compares departure and arrival times with train schedule to determine accuracy of schedule. Reviews reasons or causes for delays by reading crew reports. Compares sequence of cars in train with consist list. May sell tickets to passengers.

GED: 3 SVP: 3 PA: S 4 EC: I DPT: 3 8 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 <u>4</u> 5 4 <u>4</u> 4 4 4 5 5	3 1	2 3 Y

9139-118 SIDING CHECKER-MESSENGER (rail trans.)

Checks industrial sidings to locate empty freight cars and conveys messages:

Drives automobile to observe, check and record car numbers and types of cars standing idle on industrial sidings. Notifies superior of findings by two-way radio or written report. Picks up shipping bills from customers and delivers them to office. Delivers bond-advice notes to customs brokers and picks up customs releases.

GED: 2 SVP: 3 PA: L 4 5 6 7 EC: B DPT: 3 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 4 4 4 <u>3</u> 5	3 1	2 3

9139-122 CAR ICER (rail trans.)

Fills bunkers of railway refrigerator cars with block or crushed ice: Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9139-199 OTHER RAILWAY TRANSPORT OPERATING OCCUPATIONS

This residual group includes occupations in railway transport operating not presently classified in Minor Group 913.

915-WATER TRANSPORT OPERATING OCCUPATIONS

This minor group includes occupations concerned with operating and controlling fresh water, coastal or sea going vessels and drilling platforms and vessels, to transport passengers and cargo, to provide icebreaking, search and rescue and regulatory services, and drill for offshore oil and gas deposits; and providing direct support to water transport operations such as, operating communications equipment and navigational aids, and tending locks and bridges. Occupations concerned with the operation of dredges to mine ore are classified in Unit Group 7719, MINING AND QUARRYING INCLUDING OIL AND GAS FIELD OCCUPATIONS, N.E.C. Occupations concerned with dredging canals and marine channels are classified in Minor Group 871, EXCAVATING, GRADING, PAVING AND RELATED OCCUPATIONS. WATER TRANSPORT OPERATING OCCUPATIONS are classified in the following unit groups:

- 9151 Deck Officers
- 9153 Engineer Officers, Ship
- 9155 Deck Crew, Ship
- 9157 Engine and Boiler Room Crew, Ship
- 9159 " Water Transport Operating Occupations, n.e.c.

9151-DECK OFFICERS

This unit group includes occupations concerned with managing and operating vessels, including self-propelled dredges and drilling platforms and vessels, on oceans or coastal and inland waters. Activities include: planning, co-ordinating and directing the work of crews; controlling, steering and navigating the vessel; directing and supervising drilling and dredging operations; safeguarding passengers, crew and cargo; and piloting the vessel in rivers, harbours and other confined and hazardous waters. Occupations concerned with the operation of towed dredges are classified in Unit Group 8711, EXCAVATING, GRADING AND RELATED OCCUPATIONS. Occupations concerned with the operation of land-based oil and gas drilling platforms are classified in Unit Group 7711, ROTARY WELL-DRILLING AND RELATED OCCUPATIONS.

9151-110 MASTER, SHIP (water trans.)

Commands ship to transport passengers and cargo, or to provide services such as, enforcement and regulatory services, icebreaking, and search and rescue services on oceans, coastal and inland waters:

Tours and inspects ship to ascertain physical condition of hull, equipment and power plant, determine manoeuvring qualities of ship, test reliability of navigational instruments, and assess other factors, ensuring ship is prepared to undertake voyage. Obtains and studies itinerary and prepares voyage plan. Plans and executes the safe navigational passage of ship, using navigational aids such as, dividers, charts and publications, plotting sheets and parallel rule. Sets course of ship and instructs watch mates on courses to be steered. Determines geographical position of ship, using navigational instruments such as, radar, loran, distance indicators, echo sounders and other electronic instruments and navigational aids. Supervises and co-ordinates the activities of ship's officers and issues general standing orders, and specific instructions respecting navigation of ship, to facilitate safe, economical voyage. Ensures maintenance of ship's log. Complies with company policies, adheres to regulated navigation practices and procedures, and ensures that conduct of crew and passengers meets set standards. Embarks pilot as required, to obtain advice regarding local-navigational hazards, weather, tides and currents. Directs berthing of ship or signals tugboat to push or pull ship when berthing or slipping from pier. May be designated according to certificate of competency held indicating geographical limits and gross tonnage for which certificate is valid, or type of ship commanded.

GED: 5 SVP: 8 PA: L 2 5 6 7 EC: B DPT: 1 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>4</u>	5 9	1 4 5 8 0

9151-111 MASTER-MINOR-WATERS APPRENTICE (water trans.)

Performs duties of **9151-110 MASTER, SHIP** (water trans.) on a progressive basis according to training schedule. See also definition for term title, **02-010 APPRENTICE** (any ind.).

9151-112 CAPTAIN, DRILLING RIG (oil & nat. gas; water trans.)

Commands drilling platform or vessel engaged in drilling for offshore oil and natural gas deposits:

Performs duties similar to those of **9151-110 MASTER, SHIP** (water trans.). Directs activities of crew during voyage of drilling platform or vessel to drilling site. Co-ordinates operation and maintenance of propulsion, ballast control, communication and other systems to ensure stability and safe working of platform or vessel under all operational and environmental conditions. Directs corrective responses in management of emergency situations such as; fire, accidental flooding of watertight compartments, or out-of-trim conditions. Monitors communications during helicopter and supply ship operations to co-ordinate activities required for safe transfer of personnel, equipment or supplies. Reviews daily reports regarding movements of drilling mud and water, drill pipe and casing, fuel and other materials which affect stability. Receives and investigates reports regarding operation and maintenance of installed equipment such as; that used for bulk fluid transfer, ballast control, fire-fighting, anchoring, safety equipment, dynamic positioning and propulsion. Tours rig on regular basis to confirm procedures pertaining to drilling rig operations at sea are adhered to. Oversees maintenance of living environment of crew, and preparation, handling and storage of food. Ensures rig meets all regulatory requirements and prepares reports and inspection summaries, as required, regarding operations and maintenance of structure and equipment.

GED: 5 SVP: 8 PA: L 2 5 6 7 EC: B DPT: 1 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>2</u> <u>2</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u>	9 1	4 9 0 Y 8

9151-113 MASTER, DREDGE (water trans.)

Commands self-propelled vessel equipped with dredging machinery used to excavate under water, in harbours, estuaries, straits, sounds, rivers, lakes, bays and oceans:

Performs duties similar to that of **9151-110 MASTER, SHIP** (water trans.), but specializes in managing and operating self-propelled dredge. Inspects machinery, power plant, hull plating and vessel superstructure to ensure vessel is in operating condition. Assesses nature of excavation to be performed, calculates and maps course(s), distance(s) and depth of water, establishes voyage itinerary and determined layout and positioning of dredge to plan operations. Determines geographical position of vessel using navigational aids such as, compass, sextant, radar, recording echo sounder, and by radiotelephone. Prepares work schedules and issues orders to officers and crew members, and directs steering of vessel. Sets course and supervises manoeuvring of vessel from berth to site location, and return to berth. Directs positioning of dredge vessel, assembling of lines and setting of anchors at site, to ensure work is performed in accordance with prescribed operating and safety standards. Directs dredging operation and communicates with excavating equipment operator at regular intervals to ensure equipment is operating at full capacity. Plans, organizes and directs emergency and scheduled maintenance repairs to maintain operating efficiency and safety of vessel and ancillary equipment. Supervises maintenance and repair overhauls of vessel and ancillary equipment during refit and lay-up operations. Manages administration of vessel by ensuring compliance with regulations, maintaining discipline among crew, making daily entries on log sheets,

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preparing a variety of correspondence and reports, and by requisitioning supplies and equipment.

GED: 4 SVP: 8 PA: L 2 5 6 7 EC: B DPT: 1 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 2 2 2 2 3 3 4 4 3 4	5 9	1 4 5 8 0

9151-114 MATE, SHIP (water trans.)

Directs operation of deck department aboard ship. Evaluates the general characteristics of ship to become acquainted with ship's layout, and the location and condition of equipment aboard ship. Confers with master to receive orders and plans schedules for the efficient and economical operation of deck department. Inspects life boats and other life-saving devices, fire-fighting equipment, cargo handler gear and navigation lights, and directs crew to repair or replace defective gear and equipment. Supervises and co-ordinates loading and unloading operations to ensure cargo is loaded or unloaded in accordance with requirements. Oversees ship's upkeep, by co-ordinating cleaning and painting activities on deck, bridge and superstructure. Instructs crew members in use of life-saving appliances, fire-fighting equipment and safety measures. Stands alternate bridge watch to master during specified periods. Determines geographical position of ship, using navigational aids and instruments such as, sextant, loran, radar, echo sounder, compass, buoys and lighthouses. Assumes ship's command if master becomes incapacitated. May supervise and co-ordinate activities of crew aboard self-propelled dredge, utilizing specialized knowledge of dredging operations. May be designated according to degree of responsibility, type of vessel, or certificate of competency held.

GED: 4 SVP: 7 PA: L 2 5 6 7 EC: B DPT: 1 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 2 2 4 3 4 3 3 4	5 9	1 4 5 8 0

9151-116 FIRST MATE, DRILLING RIG (oil & nat. gas; water trans.)

Stands watch for captain and supervises and co-ordinates the activities and safety of crew engaged in maintaining stability on board drilling platform or vessel:

Performs duties similar to those of **9151-112 CAPTAIN, DRILLING RIG** (oil & nat. gas; water trans.) when captain is not standing watch. Observes ballast control room instrumentation to assess vessel's trim, anchor tension, weather conditions, draft and positioning of rig over drill-hole. Performs stability calculations and sets operating parameters for control room operators. Directs taking-on and transfer of ballast between tanks to adjust draft and trim of rig, as performed by **9159-124 BALLAST CONTROL OPERATOR** (oil & nat. gas; water trans.). Supervises positioning of rig by setting tension limits on anchors that position rig, adjusting tension with appropriate windlasses and determining when to activate thrusters to assist anchoring system. Directs deck crew in placing or transferring material or equipment about deck to maintain rig stability. Prepares anchoring plan suitable to location and operates controls of windlasses to deploy and retrieve anchors. Supervises maintenance of anchoring equipment. Inspects,

tests and maintains fire-fighting, safety and emergency equipment and alarm systems, and schedules and supervises emergency and safety drills. Supervises operation, inspection and maintenance of tanks and peripheral equipment including pumps, valves, switches, wiring and piping used for storage and transfer of materials such as, drilling water, fuel oil and ballast. Directs ballast control room operators in emergency situations such as, mechanical or electrical ballast control failure, loss of power, severe weather, tank rupture or well blowout. Maintains daily operational logs and records of equipment usage and condition. Prepares reports covering transfers of bulk materials, procedural recommendations and work summaries. May direct crane operator in unloading of supply ship and oversee safety of procedures used for refuelling and operation of helicopter on rig.

GED: 4 SVP: 6 PA: M 2 3 4 5 6 7 EC: B 4 5 6 DPT: 2 3 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 3 4 3 4 4	9 1	4 9 0 Y 8

9151-118 PILOT, SHIP (water trans.)

Advises ship's master of course to steer for safe passage into and out of harbour, strait, river, seaway and other pilotage authorities, where expert knowledge of area is required:

Embarks ship at berth or meets ship in open water and boards ship from pilot boat. Provides expert advice to master concerning local marine matters such as, navigational dangers, tidal and weather conditions and harbour rules, to maintain the safety of ship and harbour, and to avoid running aground. Recommends course and speed of ship, subject to master's concurrence, to affect the conduct and movement of ship. Instructs watch mate to steer specified course by employing navigational aids and by relying on intimate knowledge of area, to avoid reefs, outlying shoals and other hazards. May signal tugboat to push or pull ship when berthing or slipping from pier, using radiotelephone or ship's whistle.

GED: 4 SVP: 7 PA: L 2 5 6 7 EC: B DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 2 2 2 2 3 3 4 3 3 4	5 6 9	4 5 8 0 Y

9151-122 FERRYBOAT MASTER (water trans.)

Commands ferryboat to transport passengers, motor vehicles or freight between scheduled stops, crossing inland or coastal waters: Reviews schedule, itinerary and company directives, to plan departmental activities and navigational passage. Supervises and co-ordinates activities of deck, engineering and catering departments to ensure safe, efficient passage of ferry over established routes, according to schedule. Manages loading of ferry and issues orders to close gates and raise loading ramp, in preparation to sail. Signals engine room to start engines and issues navigational orders to crew, to control course and speed of vessel. Assesses local weather and tidal conditions, to ensure safe, efficient passage. Inspects ferry and oversees departmental activities to ensure crew and passengers observe regulated safety and operating procedures. Directs berthing operation by signalling engine room to reverse engines, and instructing deck crew to manoeuvre ferry into dock. Oversees discharging of passengers, vehicles and freight and

orders reloading to commence. May operate ferry, without departmental assistance, depending on size of vessel.

GED: 4 SVP: 6 PA: L 2 4 5 6 7 EC: B DPT: 1 3 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 2 3 2 3 3 3 4 3 3 4	5 9	4 5 9 0 Y

9151-126 TUGBOAT CAPTAIN (water trans.)

Commands tugboat to tow barges and ships into and out of harbours, and coastal and inland waters:

Signals deckhands verbally, or by using megaphone or loudspeaker system to rig towlines to barges or ships. Inspects all barges taken in tow to ensure that cargo has been properly stowed, protected and lashed. Determines course and towing speed based on size and type of vessel being towed and specialized knowledge of local weather, tides and currents. Steers tugboat to push or pull barges to destination and to berth and unberth ships. Utilizes navigation devices and aids such as, compass, radar, lighthouses, and buoys to avoid reefs, outlying shoals and other hazards to shipping. Directs placement of suction hose or siphon to pump water from hold of barge. Uses radiotelephone to report position, request assistance, or receive orders.

GED: 4 SVP: 6 PA: L 2 4 5 6 7 EC: B DPT: 1 3 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 2 3 2 3 3 3 4 3 3 4	5 9	4 5 9 0 Y

9151-128 WATCHKEEPING MATE (water trans.)

Assists ship's command with execution of safe navigational passage of ship, and supervises activities of deck crew aboard ship: Assists 9151-114 MATE, SHIP (water trans.) with the administration and operation of deck department and ensures safety of ship, crew, passengers and cargo, during assigned deck watch. Verifies and maintains accuracy of navigational instruments, and arranges for necessary repairs. Checks and updates published aids to navigation such as, charts and radio aid books, to ensure accurate information is available. Determines geographical position of ship, using navigational instruments and aids to navigation. Stands bridge watch during specified periods and maintains correct course and speed, as directed, to ensure safe navigational passage of ship. Maintains log and makes entries of all activities and conditions. Supervises activities of deck crew as laid out by mate. Assists in the loading, stowage and discharge of cargo, by ensuring safety practices and rules are adhered to. May be designated according to degree of responsibility or certificate of competency held.

GED: 4 SVP: 6 PA: L 2 5 6 7 EC: B DPT: 1 3 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 2 2 3 4 4 3 3 4	5 9	4 5 Y 1

9151-130 DECK-OFFICER CADET (water trans.)

Performs all deck and navigational duties aboard ship under supervision of qualified deck officer to qualify as 9151-114 MATE, SHIP (water trans.).

GED: 4 SVP: 5 PA: L 2 4 5 6 7 EC: B DPT: 1 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 2 2 4 4 4 3 3 4	5 9	4 5 Y 1

9151-199 OTHER DECK OFFICERS

This residual group includes deck officers not presently classified in Unit Group 9151.

9153-ENGINEER OFFICERS, SHIP

This unit group includes occupations concerned with planning, co-ordinating and supervising the work of the engine room crew aboard ships and on board drilling platforms or vessels; and operating and repairing main engines, boilers, steering and deck machinery, motors, pumps, generators, condensers and other mechanical and electrical equipment. Engineers concerned with the design and construction of vessels and power plants, and installation or major overhaul of ships' equipment are classified in Unit Group 2159, ARCHITECTS AND ENGINEERS, N.E.C.

9153-110 MARINE ENGINEER, CHIEF (water trans.)

Plans, co-ordinates and directs activities of engine room department aboard ship and supervises personnel engaged in operating, maintaining and repairing mechanical and electrical equipment:

Inspects all mechanical and electrical machinery and equipment such as, propulsion engines, boilers, pumps, circulators, condensers, and refrigeration and sanitary equipment. Directs engineering personnel in the maintenance and repair of equipment, or replacement of defective parts. Stands engine room watch during specified periods. Ensures that subordinates follow prescribed operating procedures. Starts and regulates speed of propulsion engines by adjusting throttles, valves and levers. Maintains records of engineering department operations. May repair and maintain machinery and equipment. May be designated according to the type of vessel in which serving.

GED: 4 SVP: 8 PA: L 4 5 6 7 EC: I 3 5 DPT: 1 3 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 3 3 2 3 4 3 4 3 3 4	9 5 1 0	4 5 0 Y

9153-112 CHIEF ENGINEER, DRILLING RIG (oil & nat. gas; water trans.)

Plans, co-ordinates and directs activities of crew members engaged in engine operation and maintenance of mechanical and electrical equipment on board drilling platform or vessel drilling for offshore oil and natural gas deposits:

Observes operating engines and control panels to verify satisfactory

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functioning and status of electrical power outputs, loading and distribution, and initiates corrective actions when required. Plans and implements inspection and maintenance program for engines, generators, rectifiers, power distribution systems and other mechanical and electrical components such as; ballasting and fluid transfer equipment, ventilation and sanitary systems, fire-fighting and emergency equipment, communications equipment, hoists, deck machinery and drilling support equipment. Supervises crew members during dismantling, repair or replacement and reassembly of installed equipment, interconnecting piping and wiring, controls and protective devices. Records inspections and maintenance work done and submits periodic reports of activities. Records data on operation of engines and ancillary equipment in log book. Stands engine room watch during specified periods. May assist members of engineering crew to diagnose malfunctions and do repair work.

GED: 4 SVP: 8 PA: M 2 3 4 5 6 7 EC: B 2 3 4 5 6 7 DPT: 1 3 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>2</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u>	9 1	4 0 Y

9153-114 MARINE-ENGINEER OFFICER (water trans.)

Operates main engines of ship, repairs engines and other equipment, and supervises and co-ordinates activities of engine room crew: Stands engine room watch during specified periods and observes that machinery and equipment are operating normally. Pushes or pulls levers, turns valves and adjusts governor to start, stop and control speed of propulsion engines on signal from bridge. Inspects engines and other equipment such as, pumps, circulators, condensers, compressors, winches and steering engines to determine malfunction, and orders crew members to repair or replace defective parts. Dismantles, repairs and reassembles machinery and equipment, using hand and power tools, micrometer and lifting devices. Keeps engine room log, recording information such as, gauge readings and engine orders. May be designated according to vessel in which serving or degree of responsibility exercised, and be classified accordingly.

GED: 4 SVP: 7 PA: M 3 4 5 6 7 EC: 1 3 5 6 7 DPT: 2 3 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>2</u> <u>3</u> <u>3</u> <u>2</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u>	9 1 0 5	4 0 Y 5

9153-116 MARINE-ENGINEERING TECHNICIAN (military)

Operates and maintains main engines, boilers, auxiliary machinery and associated equipment on board Canadian Forces ships: Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN** (military). Monitors gauges and other instruments, and adjusts controls to operate main propulsion machinery. Maintains main engines, boilers and auxiliary machinery such as, generators, hydraulic stabilization and steering gear, and engines of ships' boats. Replaces defective or worn parts or fabricates replacement parts on machinery and equipment. Prepares records and reports of maintenance performed.

GED: 4 SVP: 7 PA: M 3 4 5 6 7 EC: 1 3 5 6 7 DPT: 2 3 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>2</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u>	9 1	0 Y

9153-117 FIRST ENGINEER, DRILLING RIG (oil & nat. gas; water trans.)

Supervises and co-ordinates activities of crew members engaged in operating, maintaining and repairing mechanical and electrical equipment on board drilling platform or vessel at sea:

Performs duties similar to those of **9153-112 CHIEF ENGINEER, DRILLING RIG** (oil & nat. gas; water trans.) when chief is not standing watch. Observes engines and control panels of electrical power generation and distribution systems to verify normal operation of equipment and takes corrective action, when required. Inspects rig machinery and equipment in accordance with scheduled program. Co-ordinates maintenance activities of members of engineering crew. Records data regarding equipment operation and maintenance work completed. May disassemble installed equipment, wiring or piping for repair or inspection, using hand and power tools, and replace or repair defective parts prior to reassembling and testing of equipment or system.

GED: 4 SVP: 7 PA: M 2 3 4 5 6 7 EC: B 2 3 4 5 6 7 DPT: 2 3 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u>	9 1	4 0 Y

9153-118 MARINE-ENGINEER-OFFICER CADET (water trans.)

Performs under supervision, as trained, all duties concerned with operating and repairing propulsion plant and auxiliary machinery and equipment in engine room of ship to qualify as **9153-114 MARINE-ENGINEER OFFICER** (water trans.) after attending formal training classes ashore.

GED: 4 SVP: 5 PA: L 3 4 EC: 1 5 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>2</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u>	9 1	0 Y

9153-199 OTHER MARINE ENGINEERS

This residual group includes marine engineers not presently classified in Unit Group 9153.

9155-DECK CREW, SHIP

This unit group includes occupations concerned with performing deck and bridge duties aboard vessels that transport freight and passengers and provide other services such as, tow ships, barges or log booms. Activities include: supervising deck crew, steering the ship as directed by a deck officer, standing deck watches, operating small water craft and deck-mounted lifting devices, and maintaining ship's structural woodwork, wooden gear, deck equipment and deck surfaces.

9155-110 SHIP'S CARPENTER (water trans.)

Fabricates and repairs ship's woodwork and wooden gear and performs a variety of other duties as member of ship's crew:

Fabricates and repairs ship's structural woodwork and wooden gear such as, partitions, panelling, floors, doors, cabinets, lockers and tables using drawings and carpenter's hand and power tools. Controls capstan and other winches to weigh or veer anchor, or warp ship alongside pier. Turns valves and controls pumps to transfer liquids between storage tanks to maintain trim of ship. Sounds water tanks with tape and plumb bob, computes soundings and logs results. Couples ship's hose to hydrant on pier and turns valve, using wrenches, to fill tanks with fresh water. Greases running gear and anchor capstan. Attaches cargo nets, pallets or slings to winch wire and signals other worker to move, raise or lower cargo. May perform a wide variety of maintenance duties such as, laying tile, refinishing painted or varnished woodwork, repairing upholstery, repairing and servicing plumbing and plumbing fixtures, and testing safety and fire-fighting equipment.

GED: 4 SVP: 7 PA: M 2 3 4 7 EC: B 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 3 3 3 3 4	9 0 1	0 Y 9 1 8

9155-114 BOATSWAIN (water trans.)

Supervises activities of deck crew aboard ship:

Directs deck crew engaged in activities such as, using deck machinery and hoisting equipment, berthing and unberthing ship, handling and storing cargo and supplies, and in performing daily ship maintenance activities to ensure work schedules are met. Assigns tasks to deck crew and checks work for completeness. Provides on-the-job training and instructs crew in work methods and on safety procedures. Ensures cleanliness of ship and good working condition of all equipment under control of deck department.

GED: 3 SVP: 6 PA: L 2 3 4 5 6 EC: O DPT: 1 3 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 4 3 3 3 3 4	9	4 5 0 Y 1

9155-118 ABLE SEAMAN/WOMAN (water trans.)

Serves as senior deck-hand performing any combination of the following duties:

Stands regular watch at sea by steering ship as directed by deck officer and by acting as look-out at bow or on bridge to support the safe navigational passage of ship. Monitors course accuracy of automatic pilot by comparing with compass. Determines depth of shallow or unfamiliar waters using hand-held leadline. Breaks out, rigs, overhauls and stows cargo-handling gear. Assists in berthing and unberthing operations, and raising and lowering ship's boats by handling mooring lines, cables and using deck machinery. Maintains lifeboats and other safety devices and equipment. Removes rust and scale from metal surfaces and repaints the superstructure, deck and hull to maintain ship's condition. Maintains running and standing rigging by splicing and repairing ropes, wire cables and cordage. Keeps ship's log in port. Stands gangway watch to prevent unauthorized persons from boarding ship. May be designated according to specific duty performed.

GED: 3 SVP: 5 PA: M 2 4 7 EC: B DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 4 3 4 3 3 4	9 1	5 Y

9155-120 BOATSWAIN (military)

Performs mooring duties, operates small water craft and deck-mounted lifting devices, and participates in cleaning and maintenance of surfaces above waterline on board Canadian Forces ships:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Handles lines during mooring, anchoring, towing and rescue-at-sea operations. Interprets navigational charts and meteorological equipment, and operates and navigates small craft such as, motor cutters, landing craft and crash boats used for personnel rescue. Inspects, prepares and preserves wood and metal surfaces above waterline using cleaning agents, chipping hammers, paint and other protective coatings. Operates cranes, derricks, winches and other cargo handling equipment, and participates in replenishment operations such as, supplying and receiving ammunition, fuel, provisions, personnel and water. Transports, stows, calculates, prepares, places and detonates explosives to assist in above-water demolition operations.

GED: 3 SVP: 5 PA: L 2 3 4 7 8 EC: B 6 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 4 3 3 3 3 4	9 1	0 8 Y 1

9155-122 DECK-HAND (water trans.)

Serves as member of deck crew aboard ship performing any combination of the following duties:

Stands lookout at bow or on bridge of ship to alert deck officer of objects sighted such as, flags, buoys, lighthouses, other ships and navigational hazards. Steers ship as directed using compass to maintain course. Handles hawsers or wire ropes to secure vessel to wharf or other vessel and to lay out towing lines. Mops or washes deck to remove oil, dirt and debris using hose, detergents, mop and brush. Chips rust from deck, superstructure and sides of ship using hand or pneumatic chipping hammer and wire brush. Refinishes chipped areas by applying preservative coating using brush, roller or spraying equipment. Moves controls or turns handwheels to raise or lower passenger and vehicle landing ramps. Inserts restraining chocks under wheels of motor vehicles to prevent movement during passage. Loads or unloads baggage, cargo or other material using handcart and hook-up winches. Guides crane operator with hand or arm signals during loading and unloading operations. Assists other workers to break out, rig, repair and stow cargo handling gear standing rigging and running gear, using marlin-spike, mallet, twine and needle. Lubricates deck machinery and equipment using grease gun and oil can. May be designated according to type of vessel in which serving.

GED: 2 SVP: 4 PA: H 2 3 4 7 EC: O DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 3 4 3 3 4	1 3	2 3 Y

9155-126 TUGBOAT DECK-HAND, LOG BOOM (water trans.)

Serves as deck-hand aboard tugboat used to tow, repair and anchor log booms:

Handles berthing hawsers to secure or slip tugboat. Rigs and lays out towing hawser or wire rope on deck. Unshackles log boom from anchoring device and secures towing line to log boom using shackles.

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hooks and hand tools. Stands watch and observes position and movement of log boom to prevent fouling. Repairs broken log booms, walking and balancing on logs or working from small boat, using boom chains, pike pole and hand tools. Secures log boom to anchor buoy at destination or breaks log boom to facilitate moving logs into mill. Cleans and paints deck and superstructure of vessel using cleaning compounds, water, brushes, paint and hand tools.

GED: 2 SVP: 4 PA: H 2 3 4 EC: O 4 6 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 <u>3</u> 4 <u>3</u> 2 4	1 3	2 3 Y

9155-199 OTHER MEMBERS OF DECK CREW, SHIP

This residual group includes members of ship's deck crew not presently classified in Unit Group 9155.

9157-ENGINE AND BOILER ROOM CREW, SHIP

This unit group includes occupations concerned with operating, repairing and installing electrical machinery, equipment and power supply sources, lubricating engines and other machinery, tending boilers, assisting in the repair of engines, boilers and other equipment, and cleaning engine room and machinery.

9157-100 SHIP'S ELECTRICIAN (water trans.; electric equip.)

Operates, repairs and installs electrical machinery, equipment and power supply sources aboard ship at sea:

Provides ship with constant, safe supply of electrical power by adjusting loads between source generators, by starting, stopping and restarting generators, motors and other electrical supply devices. Installs and repairs electrical machinery and equipment such as, generators, alternators and motors, and commissions circuits, switches, regulators and other ancillary devices using hand and power tools and by following diagrams and technical manuals. Installs and repairs ship's intercommunication system and services navigational equipment. Furnishes electrical services on board ship by wiring instrument panels, fixtures and equipment, and by laying conduit and connecting wire to terminals. Conducts periodic inspection of power supply systems and all electrical equipment, by reviewing pertinent log sheets and instrument readings, and by testing equipment and systems using voltmeter, ammeter and other instruments to detect malfunctions. Carries out preventative maintenance program on electrical equipment and power supply systems by checking, servicing and replacing parts, by adjusting voltage regulators and rewinding motor coils, and by recharging storage batteries to prevent major problems from occurring. Connects and disconnects shore-based electrical supply cables to permit ship to conduct its business while in port. Advises engineer on major repair, maintenance requirements and planned maintenance schedules. Keeps records of repairs, requisitions of equipment and

supplies, and maintains inventory of all electrical equipment, supplies and spare parts.

GED: 4 SVP: 7 PA: M 2 3 4 7 EC: 1 5 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 <u>3</u> 3 3 3 4	9 1 0	Y 0

9157-110 OILER, MARINE (water trans.)

Lubricates moving parts of engines and auxiliary equipment used to propel ships, and assists with operation and upkeep of engine room: Oils and greases engine room machinery and equipment by placing specified lubricants into oil and grease cups and reservoirs or directly onto moving parts and surfaces such as, shafts, gears and bearings, using oil cans and grease guns. Regulates flow of oil to moving machine parts by turning oil valves. Assists engineer in the operation and servicing of machinery and equipment by observing machine functions and reporting discrepancies, by reading gauges and instruments and recording entries into log book, and by adjusting and repairing machinery, as directed, using hand tools. Maintains cleanliness of engine room by sweeping floors, cleaning and painting machinery and by polishing metal work. Assists in fuelling operations.

GED: 3 SVP: 4 PA: M 3 4 EC: 1 3 5 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 5 <u>4</u> 4 <u>4</u> <u>3</u> 5	3 1 9	2 3 Y

9157-111 MARINE ENGINEERING MECHANIC (military)

Assists in operation, maintenance and repair of boilers and auxiliary machinery associated with main engines of Canadian Forces ships: Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN** (military). Assists in operation of boilers to supply steam to main engines and auxiliary machinery. Operates electrical, steam and gas turbine driven machinery, diesel, gas turbine and steam driven electrical power generating plants, direct and indirect refrigeration plants and air-conditioning equipment, distilling and water purification plants, mechanical, electric and hydraulic steering equipment, stabilization equipment, sea-water systems, suction, filling and transfer systems, and associated equipment. Inspects, tests, installs, modifies, maintains and repairs auxiliary machinery, boilers, laundry equipment, workshop machinery and mechanical data-transmission systems. Assists in recording tests carried out and repairs effected. Assists in requisition, procurement, custody and disposal of permanent and consumable stores.

GED: 4 SVP: 6 PA: M 2 3 4 7 EC: 1 3 5 6 7 DPT: 3 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9	0 Y

9157-114 BOILER TENDER, SHIP (water trans.)

Tends oil fired boilers aboard ship to supply steam at specified pressure:

Installs atomizing tips on end of burner barrels, using wrench, and inserts barrels in burner. Connects fuel oil lines to burners and ignites

fuel with torch. Adjusts burners, fuel and air pressure by turning valves, to supply steam pressure at specified level. Regulates amount of water in boiler by observing gauges and turning valve. Adjusts air controls to minimize smoke from funnel. Cleans drip pans, atomizing tips, burner barrels, and work area, using steam hose, solvents or rags. Turns valve and pulls levers to operate soot blowers to remove combustion residue from boiler tubes.

GED: 3 SVP: 3 PA: L 3 4 EC: 1 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 4 4 5 3 4 3 3 4	3 1 9	2 3 Y

9157-199 OTHER MEMBERS OF ENGINE AND BOILER ROOM CREW, SHIP

This residual group covers members of ship's engine and boiler room crew not presently classified in Unit Group 9157.

9159-WATER TRANSPORT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with water transport activities such as, attending to ship's business and comfort of passengers, co-ordinating the provision of internal services aboard ship, conducting on-shore activities for company vessels, controlling positioning of drilling vessel over drill-hole and maintaining stability of submersible drilling rig, operating ships' communications equipment, light stations, inland waterway and canal systems, drawbridges, small craft and cable ferries.

9159-110 PURSER (water trans.)

Conducts ship's business, arranges passenger services and directs subordinate staff who carry out these duties: Executes ship's business by preparing a variety of documents such as, shipping articles, entrance and clearance papers for foreign ports and ship's cargo manifest when discharging cargo. Manages ship's administration by signing on crew, maintaining payroll records and by paying crew on completion of voyage. Supervises and co-ordinates all functions of catering and passenger service section on board vessel. Assists passengers in preparing customs declarations and arranges for inspection of immigration documents. Attends passenger needs by providing banking services, arranging for travel and scenic tours at ports of call and by organizing games, parties and other entertainment activities. Supervises storage, care and removal of hold baggage. May conduct religious services. May provide first aid to passengers and crew.

GED: 4 SVP: 7 PA: S 5 6 EC: 1 DPT: 1 3 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 3 2 4 4 4 5 5	2 1 4	5 9 Y 1

9159-111 SUPPLY OFFICER (water trans.)

Supervises and co-ordinates domestic services and the ordering, stowing and maintaining of all supplies used on board ship: Stores ship with supplies such as, food, linen, tools and engine parts by directing the ordering, stowing and security of all materials. Maintains supply inventories and controls issue of all stock. Manages the provision of food and domestic services on board ship by supervising and co-ordinating activities such as, menu and meal planning and preparation, housekeeping and laundering, and by allocating accommodations, and supervising operation of ship's canteen. Prepares budgets and maintains financial records to control costs and evaluate departmental effectiveness. Manages ship's administration by establishing and maintaining management record systems, preparing ship's correspondence and reports, maintaining ship's personnel files and records and by providing administrative assistance to ship's command. Collaborates with other departments to formulate operational and maintenance schedules.

GED: 4 SVP: 7 PA: S 5 6 EC: 1 DPT: 1 3 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 3 4 4 4 4 4	1 2	4 5 0 Y 1

9159-112 MARINE SUPERINTENDENT (water trans.)

Conducts on-shore activities for company vessels: Reads radio message from ship's captain to determine services requested. Requisitions supplies or equipment to be delivered to dock on vessel's arrival. Determines number of personnel and time required for loading and unloading ship and places order for personnel. Orders fuel and arranges time of delivery. Arranges for other services such as, pay delivery, inspections, tests and overhauls as required by governmental regulations or by company. Informs ship's captain of arrangements made using radiotelephone. Prepares reports on ship's activities, such as tonnage handled, time in port and stevedoring service. May order personnel replacements for ship's crew. May command ship during illness of ship's captain or other emergency.

GED: 4 SVP: 7 PA: S 4 5 6 EC: B DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 4 3 4 4 4 5 5	2 1	9 Y 1 4 5

9159-114 RADIO OFFICER (water trans.)

Operates and maintains radio equipment on board ship or at shore station to receive and transmit messages, using prescribed procedures: Switches on power supplies to receiver and transmitter. Turns dials to tune receiver to appropriate frequency, receives merchant ship broadcast and monitors international distress frequency. Determines optimum transmitter frequency by referring to frequency guide and considering such factors as geographic location, date and time of day. Adjusts variable frequency oscillator or inserts crystal in transmitter to set transmitter on specified frequency. Turns dials, reads meters, and adjusts antenna controls to tune transmitter for maximum power output. Transmits message by morse code, using automatic, semi-automatic, or hand telegraph key, or by radiotelephone. Keeps logs of messages received and transmitted. Operates direction finding equipment to obtain radio bearings of other stations. Observes and records weather conditions for use in forecasting, using reporting code

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and instruments, such as barometer, thermometer, hygrometer, and anemometer to obtain pressure, temperature, humidity, and wind direction and speed. Encodes and transmits weather data using specified format. Maintains radio and associated equipment. Prepares reports and correspondence relative to radio room operations. May accept messages from passengers for onward transmission, and compute and collect charges.

GED: 4 SVP: 6 PA: L 4 5 6 7 EC: I DPT: 2 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 3 3 2 2 3 4 5	9 1	Y 0 1

9159-118 LOCKMASTER (water trans.)

Supervises and co-ordinates the activities of workers engaged in operating lock gates and ancillary equipment of canal for vessels requiring passage:

Directs workers to marshal, moor, and control ships awaiting passage, raise or lower water level in canal lock, open or close lock gates, operate any swing-bridge or lift-bridge used in conjunction with lock, and operate navigation and traffic signals. Records data concerning weather conditions and registration of vessels passing through locks. Directs and controls movement of vessels in lock area using portable loudspeaker and telephone. Observes performance of vessels in transit through locks and institutes emergency procedures to assist vessels in difficulty. Exercises control of and maintains good public relations with persons using lock facilities, such as ships' crews, pleasure-boat operators and sightseers. Supervises operation of water level control system used in conjunction with lock for control of water in relation to navigation, flood prevention and conservation. Inspects lock equipment and orders repairs or maintenance. Prepares reports and returns related to lock operations such as, employee records, vessel traffic, oil and smoke pollution from vessels, accidents, delays, complaints, or infractions of canal regulations. Collects toll charges from vessel operators as applicable. May perform duties of workers in emergency, such as handling line or operating bridge.

GED: 4 SVP: 6 PA: L 5 6 7 EC: B 6 DPT: 1 3 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 3 3 4 4 4 4 4	1 2	4 5 0 Y 1

9159-119 DYNAMIC POSITIONING OPERATOR, DRILLING RIG (oil & nat. gas; water trans.)

Operates and controls computerized station keeping system that maintains location of vessel over drill-hole in ocean floor:

Sets up operational parameters for dynamic positioning system and selects on-line sensors to be used for determining position and heading of vessel. Loads programs into computer and operates computer keyboard to make program changes in data base and enter data such as, heading to be maintained, water depth, windspeed and direction. Sets up acoustic reference system for entry of data from beacons, hydrophones and transponders into system. Observes digital or graphic displays on control room console to monitor, variance of drillship from its position over drill-hole. Compares outputs of different on-board systems used for indicating position of drillship. Monitors operation of automated thrusters that maintain position of ship by observing thruster power and azimuth feedback indicators, power usage and alarm signals. Changes or corrects position of rig by selecting

appropriate thrusters, setting azimuth and power levels and actuating three-axis controller to adjust rig location. Sets up strip-chart recorders and ensures specified operational and system data are recorded. Analyzes feedback from on-line sensors and strip-chart records to identify faults and prevent defective units from degrading system performance. Monitors messages on system alarm printer and informs supervisor of potential alerts or drive-off situations. Assists in repair or replacement of computer components, position reference systems and associated control systems, using small hand tools and electronic test equipment. Records status and performance of systems in log books and prepares technical reports on failures or malfunctioning equipment.

GED: 4 SVP: 6 PA: L 4 5 6 EC: I DPT: 2 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 3 3 4 4 4 4	9 1 3	0 Y

9159-120 RADIO OPERATOR, DRILLING RIG (oil & nat. gas; water trans.)

Operates and maintains radio communications equipment while keeping watch on board drilling platform or vessel at sea: Switches on power to communications gear and tunes receiver and transmitter to appropriate frequencies. Maintains radio watch and performs scheduled checks on specified distress and company operational frequencies. Reports loss of signal contact to captain of rig. Provides continuous communication service to helicopter flights servicing drilling rig and radiotelephone and message service to onshore company base and supply ship. Makes scheduled entries in radio log and maintains record of communications between drilling rig, other ships, helicopters and shore. Distributes copies of messages to recipients aboard rig. Diagnoses faults in radio equipment and makes minor repairs using small hand tools. Inspects antennas for damage and corrosion, cleans terminals, repairs insulation, replaces parts and adjusts tension, as specified. Inspects and tests emergency battery power supply and lifeboat radio according to scheduled maintenance instructions. May compute toll charges for radiotelephone calls and maintain toll records.

GED: 4 SVP: 6 PA: L 4 5 6 7 EC: I DPT: 2 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 4 3 3 4 4 5	9 3	Y 0 1

9159-121 DATA MANAGEMENT SYSTEM WATCHSTANDER (oil & nat. gas; water trans.)

Monitors generation, distribution and consumption of electrical power and functioning of service systems of vessel engaged in drilling for offshore oil and natural gas deposits and takes appropriate measures for correction of malfunctions:

Observes indicators on control panels for temperatures, pressures and power outputs from diesel electric generating units to ensure efficient operation and adequacy of power for user functions on vessel. Changes operating functions or limits of automated power management system by manually altering computerized program. Stops or starts generators or changes load distribution and initiates power feedback procedures to correct for deficiencies within system before failure or damage to equipment occurs. Operates automated data recording system and monitors television displays, computer printouts and log tapes used to

verify operational status of vessel and equipment. Checks operating pressures, temperatures, fluid levels and warning indicators of functioning service systems such as, fresh water production, fuel and water storage, refrigeration and air-conditioning. Informs supervisor or advises appropriate members of crew regarding levels of power available, or existence of abnormal conditions relative to operation of equipment or systems. Actuates controls on panel to start, stop and test thrusters of station keeping and propulsion system. Responds to emergencies by sounding alarms, activating emergency procedures and equipment such as, fire pumps and dampeners. Makes entries in log books and writes technical reports.

GED: 4 SVP: 6 PA: L 5 6 EC: I DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 3 4 3 4 5	9 1	Y 0

9159-122 LIGHTKEEPER (gov. serv.)

Operates and maintains navigation lights, fog signals and other light station equipment to guide marine traffic: Controls and maintains power generators by cleaning batteries, replacing fuses and resetting trip devices to ensure reliable supply of source power for light station equipment. Operates navigation lights from sunset to sunrise and during periods of inclement weather and reduced visibility by activating light beacon and sweep mechanism. Cleans lens and reflector and services drive motor mechanism to ensure optimum performance. Maintains fog signal and ancillary equipment and activates such devices during periods of reduced visibility. Notifies authorities of hazards to navigation such as, ships in distress, buoys out of position and similar occurrences observed or monitored from light station, using radio or telephone. Inspects light station and maintains electrical and mechanical equipment and repairs light station structures using hand and power tools. Requisitions supplies and prepares maintenance reports. Keeps log of daily activities.

GED: 3 SVP: 6 PA: L 2 4 5 6 7 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 3 4 3 4 4	9 1	6 0 Y

9159-124 BALLAST CONTROL OPERATOR (oil & nat. gas; water trans.)

Operates ballast control equipment to maintain stability of semi-submersible drilling rig: Monitors instruments in ballast control room for indications of fore and aft and lateral trim, anchor tension and positioning over drill-hole, and draft, heave, pitch and roll of rig. Observes tank gauges and performs stability calculations to determine ballasting adjustments required to correct deviations from desired draft and trim of rig such as, correction of lists created during loading or discharging material from rig. Selects appropriate tanks and operates panel controls for valves and pumps to transfer, take on or discharge ballast from tanks. Monitors weather recording instrumentation and wind and sea conditions to detect changes that require ballast control responses. Maintains trim of vessel during deployment and recovery of anchors

by making ballasting adjustments. Monitors alarm systems such as, those used to indicate bilge levels, presence of hydrogen sulphide or combustible gases, or fire. Maintains vessel trim and stability in emergencies, begins specified corrective procedures, sounds alarms and notifies supervisor and key personnel of situation. Makes entries in log books and prepares and submits reports. May inspect hull pump rooms, pumps and thrusters, test bilge level alarms and manually sound hull tanks to verify automatic sounding system.

GED: 4 SVP: 5 PA: L 3 EC: I 5 6 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 3 4 3 4 5	9 1	Y 0

9159-126 MARINE TRAFFIC REGULATOR (water trans.)

Regulates coastal and inland marine traffic by operating and monitoring communications and surveillance equipment to enhance the safe, efficient movement of vessels:

Observes vessels passing checkpoint and establishes identity using radiotelephone and surveillance equipment. Ascertains position, course and speed and estimated arrival time using radar. Telephones information to control centre and other authorities. Reports movement of overdue vessels to provide estimate of arrival time at specified points. Notifies authorities of accidents, distress signals, obstructions, and other unusual conditions observed from checkpoint using telex, telephone or teletype. Plots progress of vessels, pollution spills and other relevant data onto nautical charts by hand, to furnish specified location information to various users. Issues clearance instructions to ships and advises vessels of traffic volumes, weather conditions and other applicable data to prevent collisions or groundings. Co-ordinates ship traffic in and out of areas under other jurisdictions. Provides marine information such as, notices to mariners, shipping reports, and information pertaining to aids to navigation, using radio equipment. Records observations in log and keeps record of transmissions using tape recording equipment. Monitors, tests and adjusts electronic and other traffic centre equipment to ensure equipment reliability.

GED: 4 SVP: 5 PA: L 4 5 6 7 EC: I DPT: 1 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 3 4 4 4 5 4	9 1	0 Y

9159-128 SUPPLY CLERK, SHIP (water trans.)

Orders, receives and controls stock inventories and provides clerical support function on board ship:

Consults stock control records and prepares and processes stock requisitions to ensure adequate supplies are available. Receives stock and checks stock quantity and quality and reports discrepancies. Moves supplies to storage areas using hand trucks and other similar aids, and stores supplies according to preservation specifications. Secures and maintains storage areas by enforcing security regulations, monitoring temperature and humidity readings and by keeping area clean and unobstructed. Issues supplies and controls stock inventories by preparing vouchers, updating control records, and by regular stocktaking. Types ship's correspondence and reports, maintains ship's filing system, processes mail and personnel documents and performs

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other general office duties as required. Maintains supply catalogues, manuals and other publications. May operate ship's canteen.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 3 <u>3</u> 4 <u>4</u> 4 4	9 1 3	2 Y

9159-130 BRIDGE OPERATOR (water trans.)

Operates railway or highway bridge over waterway to permit passage of vessels:

Observes approaching vessel and listens for sound signal from vessel indicating desire to pass. Operates controls of bridge to start bridge motors, set signal lights, close traffic gates and sound alarm siren when vessel passes predetermined location to halt street traffic or activate interlocking railway signals to warn oncoming trains. Manipulates levers to release bridge locks and to control motors, to raise, lower or turn bridge to predetermined spans allowing passage of vessel. Inspects bridge and auxiliary equipment and recommends repairs or adjustments. Maintains equipment by cleaning, oiling and greasing machinery. Prepares reports regarding bridge operation, accidents and mechanical maintenance and keeps log of vessel traffic. May perform watch duties during non-navigational season.

GED: 3 SVP: 4 PA: L 4 6 7 EC: I DPT: 5 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 3 3 <u>4</u> 4 <u>4</u> 4 4	9 1 3	2 Y

9159-134 SMALL-CRAFT OPERATOR (water trans.)

Operates motorboats, launches and other small craft to transport passengers and freight or perform special operations such as, making soundings, patrolling beaches, conducting sight-seeing tours, and operating charter service or water taxi:

Starts motor and verifies operating conditions by observing fuel, oil pressure and temperature gauges. Manoeuvres boat by moving levers and helm to change speed and direction. Maintains equipment such as, fire extinguishers, life preserving devices, boat fenders, lines, pumps and fittings, using hand and power tools. Services motor by changing oil and lubricating parts. Cleans and maintains boat using hand tools, paint and brushes, and cleaning equipment. Directs loading, unloading and seating in boat. May assist in launching boat from larger vessel using mooring lines, cables and deck machinery. May operate boat for special purposes and be designated accordingly.

GED: 3 SVP: 4 PA: M 2 4 7 EC: O 4 5 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 4 5	9 1 3	2 Y

9159-138 POWER CABLE FERRY OPERATOR (water trans.)

Operates and maintains a power-driven cable ferry to transport passengers, vehicles and freight across river or inland waterway:

Operates gate or loading ramp, signals passengers to embark or disembark and directs loading of motor vehicles and freight. Starts

engine that propels ferryboat along cable, or that winds cable onto drum to pull ferryboat across waterway to opposite terminal. Refuels, inspects, lubricates and performs emergency repairs to engine, cables, winches, pontoons, and riders using hand tools and lubricants. Prepares reports on ferry traffic and maintenance performed and maintains a daily log book. May collect fares from passengers. May flood ice bridge crossing for pedestrians or vehicles during winter to preserve thickness of ice, using hose.

GED: 2 SVP: 4 PA: L 4 5 6 EC: B 5 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>3</u> 4 5 <u>4</u> 4 <u>3</u> 4 5	9 1 3	2 Y

9159-142 LOADING BRIDGE OPERATOR (water trans.)

Controls horizontal and vertical movement of bridge used to embark or disembark railway cars aboard barge, ferry or other vessel: Secures vessel to wharf using berthing hawsers and winch. Operates bridge controls to extend and align tracks on bridge with those on vessel, and adjust vertical movement of bridge as draught of vessel changes during loading and unloading operations.

GED: 2 SVP: 3 PA: L 4 7 EC: I 5 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 <u>3</u> 4 5 <u>4</u> 4 <u>3</u> 4 5	9 1 3	2 Y

9159-146 REACTION FERRY OPERATOR (water trans.)

Operates and maintains a reaction cable ferry, utilizing river currents for motive power, to transport passengers, vehicles and freight across river:

Directs loading of passengers, vehicles and freight, and prepares for departure. Revolves hand operated drum to adjust guide cables attached to suspended, overhead cable, turn bow angle of ferry against river current and propel ferry across river. Controls ferry by moving drum handle by hand and manoeuvres ferry across waterway. Inspects equipment such as, cables, ropes and riders, and makes necessary repairs.

GED: 2 SVP: 3 PA: M 3 4 5 6 EC: O DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>4</u> 4 4 <u>4</u> 4 <u>3</u> 4 5	9 1 3	2 Y

9159-150 LOCK TENDER (water trans.)

Tends and operates lock gates and ancillary equipment to permit passage of vessels through canal:

Operates lock equipment to control lock gates, bridge fender booms, and valves, and the illumination of navigation and traffic signals by manipulating levers, rheostats and switches. Observes progress of vessels passing through locks, using aids such as closed-circuit television, and manipulates interlocked controls to operate lock equipment in prescribed sequence. Reports data such as, registration, type and destination, arrival and departure times of vessels using canal or lock, to control centre or lockmaster, using telephone. Assists in maintenance and watch duties at lock facility during non-navigation

season. May perform duties at canal locks designed for shallow draft vessels and operate either manual or power-driven lock equipment.

GED: 2 SVP: 3 PA: L 4 5 6 EC: B 6 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 4 <u>4</u> 4 4 5	1 3 9	2 3 Y

9159-154 FERRY TERMINAL WORKER (water trans.)

Performs a variety of duties at ferryboat terminal:

Adjusts level of landing bridge, positions or removes gangplank, opens or closes doors and gates, and secures or removes docking devices upon hearing signal of ferryboat, using electrically or manually operated equipment. Signals passengers and vehicles to embark or disembark. Inspects security of gangplank, maintains equipment and cleans work area. May collect tickets or fares from passengers and vehicle operators.

GED: 2 SVP: 3 PA: M 3 4 EC: B DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 4 5	3 1	2 3 Y

9159-158 CABLE FERRY DECK-HAND (water trans.)

Assists in the operation of cable guided ferries by performing the following duties:

Signals vehicle operators to drive vehicles onto ferry, using hand signals or verbal orders. Places chocks under wheels of vehicles. Loads or unloads freight, using hand truck. Opens and closes ferryboat gates by hand. Casts off securing lines. Lubricates gates, cable wheel and other equipment using oil can and grease gun.

GED: 1 SVP: 2 PA: M 3 4 EC: O DPT: 8 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> 4 4 5	3 1	2 3

9159-154 FERRY TERMINAL WORKER (water trans.)

Performs a variety of duties at ferryboat terminal:

Adjusts level of landing bridge, positions or removes gangplank, opens or closes doors and gates, and secures or removes docking devices upon hearing signal of ferryboat, using electrically or manually operated equipment. Signals passengers and vehicles to embark or disembark. Inspects security of gangplank, maintains equipment and cleans work area. May collect tickets or fares from passengers and vehicle operators.

GED: 2 SVP: 3 PA: M 3 4 EC: B DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 4 5	3 1	2 3 Y

9159-199 OTHER WATER TRANSPORT OPERATING OCCUPATIONS

This residual group includes water transport operating workers not presently classified in Minor Group 915.

917-MOTOR TRANSPORT OPERATING OCCUPATIONS

This minor group includes occupations concerned with operating buses, trucks, taxis, automobiles and similar vehicles to carry passengers or freight over local routes or long distances; and with providing direct support to motor transport operations such as, dispatching and scheduling operators and vehicles. Mechanics and repairers of motor vehicles are classified in Unit Group 8581, MOTOR VEHICLE MECHANICS AND REPAIRERS. MOTOR TRANSPORT OPERATING OCCUPATIONS are classified in the following unit groups:

9170	Supervisors, Motor Transport Operating Occupations
9171	Bus Drivers
9173	Taxi Drivers and Chauffeurs
9175	Truck Drivers
9179	Motor Transport Operating Occupations, n.e.c.

9170-SUPERVISORS, MOTOR TRANSPORT OPERATING OCCUPATIONS

This unit group includes occupations, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in operating motor vehicles and providing direct support to motor transport operations.

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9170-114 SUPERVISOR, TAXI DRIVERS AND CHAUFFEURS (motor trans.)

Supervises and co-ordinates activities of workers engaged in operating taxis and automobiles to transport passengers, (Unit Group 9173):
Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9170-110 SUPERVISOR, BUS DRIVERS (motor trans.)

Supervises and co-ordinates activities of workers engaged in conveying passengers by bus over established or other routes to local, intercity or long distance points, (Unit Group 9171):

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9170-118 SUPERVISOR, TRUCK DRIVERS (motor trans.)

Supervises and co-ordinates activities of workers engaged in operating trucks, tractor-trailers and similar vehicles of various sizes, powered by gasoline or diesel engines, over local routes or long distances, to transport goods and materials, (Unit Group 9175):
Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9170-199 OTHER SUPERVISORS, MOTOR TRANSPORT OPERATING OCCUPATIONS

This residual group includes motor transport operating supervisors not presently classified in Unit Group 9170.

9171-BUS DRIVERS

This unit group includes occupations concerned with conveying passengers by operating buses over established or other routes to local, intercity or long distance points.

9171-110 BUS DRIVER (motor trans.)

Operates gasoline, diesel or electric powered bus to transport passengers over established or other routes to local, intercity or long distance points:

Starts, stops and controls speed and direction of bus. Collects tickets or cash fares. Verifies passes and issues transfers, where applicable. Regulates heating, lighting and ventilating systems for passenger comfort. Complies with local traffic regulations and rules governing interurban bus operations. Reports delays or accidents. Records cash receipts and ticket fares. Provides passengers with schedule and fare information. Assists driving instructor to determine acceptability of new drivers. May load or unload express packages or passengers' baggage. May inspect bus for cleanliness and check gas, oil and water before departure. May make emergency repairs and change tires. May be concerned with a particular type of bus operated, or service provided.

GED: 3 SVP: 4 PA: M 4 5 6 7 8 EC: I 5 6 DPT: 4 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 4 4 3 4 3 3 4	9 2 3	Y 9 5 2

9173-TAXI DRIVERS AND CHAUFFEURS

This unit group includes occupations concerned with operating taxis and automobiles to transport passengers.

9173-110 TAXI DRIVER (motor trans.)

Operates taxicab to transport passengers for a fee: Picks up or meets passengers in response to request, for service, relayed by dispatcher by radio or computerized dispatch system or when hailed. Assists passengers boarding or leaving vehicle and handles luggage. Collects fee recorded on taximeter and records

transaction in log. Reports by radio to taxicab dispatcher on completion of trip. May drive taxicab, limousine or custom-built sedan to pick up or discharge airport passengers arriving or leaving on scheduled flights.

GED: 3 SVP: 3 PA: L 4 5 6 7 8 EC: O 5 6 7 DPT: 4 7 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 3 4 4 3 4 3 3 4	9 3 2	2 Y 5

9173-114 CHAUFFEUR (motor trans.)

Operates automobile or limousine to transport personnel and visitors of business, public, government or other organizations and private families:

Starts, stops and controls speed and direction of vehicle. Picks up or meets passengers according to request, appointment or schedule. Performs miscellaneous errands such as, carrying mail to and from post office. Makes overnight and extended trips requiring irregular working hours. Services and cleans vehicle, and makes minor repairs and adjustments. May be employed by private family, be responsible for several cars, and perform other duties for employer such as, gardening, exercising pets and other household duties. May render a service to patrons of restaurants, department stores and other establishments by driving car to and from these establishments to parking lot. May be designated according to type of employing agency.

GED: 3 SVP: 3 PA: L 4 7 8 EC: B DPT: 6 7 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 3 4 4 3 4 3 3 4	9 3 2	2 Y 5

9175-TRUCK DRIVERS

This unit group includes occupations concerned with operating trucks, tractor-trailers and similar vehicles of various weights, powered by gasoline or diesel engines, over local routes or between long distances to transport goods and materials. Operators of heavy earth-moving equipment are classified in Unit Group 8711, EXCAVATING, GRADING AND RELATED OCCUPATIONS.

9175-110 TRUCK DRIVER, GENERAL (motor trans.)

Operates gasoline or diesel powered trucks to transport goods and materials over urban, interurban, interprovincial or international routes by performing any combination of the following duties:

Starts, stops and controls speed and direction of truck. Performs routine inspection of items such as, brakes, tires, lights, horns, cooling and refrigeration equipment and accessories before leaving plant, warehouse or terminal. Conducts security checks and inspections en route. Reports any malfunctions and ensures vehicle is filled with appropriate fuel. Manoeuvres truck into loading or unloading docks with or without the benefit of hand signals. Secures cargo on truck with ropes, chains, hooks and clamps. Places protective padding around articles to prevent damage during transit. Drives truck to destination, either alone or as a member of a two-person crew, applying knowledge of safety regulations and road rules applicable to urban, interurban, interprovincial or international transportation

driving. Prepares receipts for loads picked up or delivered. Performs emergency roadside repairs such as, changing tires, installing light bulbs, fuses and spark plugs. Records time of arrival or departure, destination, types and amounts of products in load. Keeps vehicle log book recording items such as, mileage, fuel consumption, running time and temperature in temperature controlled units. Drives truck on weighing scales, as directed by weighing officers, to have weight of entire unit checked, either empty or loaded. Ensures that truck is loaded in such a manner as to make maximum use of available space and that load is evenly distributed and secure. Packs or assists in packing goods in special containers prior to shipping. Collects payment for goods or material delivered and collects delivery charges. May operate truck-mounted lift or winch to load or unload truck.

GED: 3 SVP: 4 PA: M 4 6 7 8 EC: B 5 6 DPT: 5 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-114 DRIVER, TANK TRUCK (motor trans.)

Operates gasoline or diesel powered single unit or tractor-trailer tank unit to transport bulk liquids:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in driving unit into position to load at filling racks or tanks and opens tank hatches. Opens valves and starts pump to fill tank. Reads gauges or meters and records quantities loaded. Records amounts delivered and issues ticket or invoice to customer. May wash truck and clean and sterilize tank. May take sample of transported liquid for laboratory analysis. May drive special unit associated with specific activity and be designated accordingly.

GED: 3 SVP: 4 PA: M 2 3 4 6 7 8 EC: B 5 6 7 DPT: 5 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-118 TRUCK DRIVER, HEAVY (motor trans.)

Operates heavy single unit gasoline or diesel powered truck, over three ton capacity, to transport goods and material:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in driving heavy trucks over paved or unpaved roads. May operate truck equipped with special attachments, such as winch, crane or hydraulically operated platform, or operated truck designed for specific activity and be designated accordingly.

GED: 3 SVP: 4 PA: M 4 6 7 8 EC: B 5 6 DPT: 5 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-122 TRUCK DRIVER, TRACTOR-TRAILER (motor trans.)

Operates gasoline or diesel powered tractor-trailer combinations to transport goods and materials:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in driving unit into position to load at filling racks or tanks and opens tank hatches. Opens valves and starts pump to fill tank. Reads gauges or meters and records quantities loaded. Records amounts delivered and issues ticket or invoice to customer. May wash truck and clean and sterilize tank. May take sample of transported liquid for laboratory analysis. May drive special unit associated with specific activity and be designated accordingly.

GENERAL (motor trans.). Specializes in driving a tractor-trailer combination or two trailers hitched in tandem, exercising special skills and driving techniques to maintain control while backing up, turning corners and negotiating narrow passageways. Connects and disconnects air-lines, hoses and operates jack support on trailer. Communicates with dispatcher by two-way radio mounted in tractor cab. Prepares reports on condition of truck and trailer before and after long-distance trips. May drive special type of combination associated with specific activity and be designated accordingly.

GED: 3 SVP: 4 PA: M 4 6 7 8 EC: B 5 DPT: 5 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-126 DRIVER, CONCRETE MIXING TRUCK (motor trans.)

Operates gasoline or diesel single unit or combination truck and trailer equipped with auxiliary concrete mixer:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in driving unit under loading hopper to receive sand, gravel and cement or pre-mixed concrete. Signals when truck is in position for loading. Fills water tank and starts mixer. Drives truck to destination and dumps concrete into chute leading to form or bucket. Cleans truck, after delivery, using water hose and shovel to prevent concrete from hardening in mixer and on truck.

GED: 3 SVP: 4 PA: M 4 6 7 8 EC: B 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-130 DRIVER, DUMP TRUCK (motor trans.)

Operates gasoline or diesel powered truck equipped with dump body to transport and dump materials such as, sand, gravel, ore, crushed rock or bituminous paving materials:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in manoeuvring truck over paved or unpaved roads, or open terrain, to spot truck under bucket of power shovel or loader. Pulls lever to tilt body and dump contents. Operates hand and foot controls to move truck forward or backward to spread material or to loosen dump material adhering to body. May be concerned with hauling particular type of material and be designated accordingly.

GED: 3 SVP: 4 PA: M 4 6 7 8 EC: B 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	9 1 3	2 Y

9175-134 DRIVER, TOW-TRUCK (motor trans.)

Operates tow-truck to move damaged or immobilized vehicles:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in receiving calls or being dispatched to location by garage, automobile association or police

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department. Attaches anti-sway bar to vehicle by means of cable, chains or other grappling devices. Hoists either end of vehicle, using hand or powered winch. Disconnects, when required, drive shaft from transmission. Tows vehicle to repair garage. May charge vehicle batteries or undertake other minor mechanical repairs. May remove, bend or cut parts of damaged vehicles preparatory to towing.

GED: 3 SVP: 4 PA: M 3 4 6 7 8 EC: B 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-136 TRUCK DRIVER, BULK MILK (motor trans.)

Transports milk from farms to dairy or industrial plant for processing. Drives truck to dairy farm. Compares reading on dip-stick with chart to determine quantity of milk in farmer's milk storage tank. Pushes button to start tank agitator to mix milk. Samples milk and places sample into labelled container. Tastes, smells and observes colour of sample to determine rough grade of milk. Stores sample in refrigerated container for delivery to dairy or industrial plant for testing. Connects pump hose from truck to storage tank, and operates controls to pump milk from tank to truck. Drives truck to processor and pumps milk into storage tank after milk has been approved by plant grader. Pumps water into truck storage tank to clean tank. Washes pump parts. Completes form explaining reason for rejecting of milk and leaves form with farmer. Delivers rejected milk to new destination for processing, if required.

GED: 3 SVP: 4 PA: L 2 4 7 8 EC: B DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>4</u> 4 4 <u>4</u> 4 <u>3</u> 3 4	1 9	2 0 Y

9175-138 TRUCK DRIVER, LIGHT (motor trans.)

Operates light trucks, under three ton capacity, to transport goods and materials:

Performs duties similar to those of **9175-110 TRUCK DRIVER, GENERAL** (motor trans.). Specializes in arranging delivery routes according to deliveries and calls to be made. Ensures that load is placed in truck in such a manner as to minimize amount of time required to locate parcel to be delivered. May communicate with dispatcher or customer by radio or telephone. May be concerned with a special type of truck associated with a specific activity.

GED: 3 SVP: 3 PA: M 4 6 7 8 EC: B 5 6 DPT: 5 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 9 3	2 Y

9175-199 OTHER TRUCK DRIVERS

This residual group includes truck drivers not presently classified in Unit Group 9175.

9179-MOTOR TRANSPORT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with activities, such as dispatching, scheduling, and co-ordinating activities of vehicle drivers; developing and maintaining public transportation routes; driving vehicles such as, ambulances, motor scooters, and all-terrain vehicles; servicing and delivering rental cars; picking up and delivering motor vehicles; assisting vehicle operators in their non-driving activities; and spotting vehicles at loading or unloading ramps.

Motor Transport Dispatching, Scheduling and Planning Occupations
9179-110 through 9179-126

9179-110 DISPATCHER, BUS (motor trans.)

Co-ordinates activities of bus drivers of transit system to convey passengers according to schedule:

Studies route schedules and assigns vehicles to meet requirements. Assigns operators to routes considering factors such as, weekends and holidays, seniority and vacation lists. Records movement and location of vehicles and road crews to inform other departments or public regarding current schedules and routes. Receives telephone or radio reports of accidents, delays, fires, equipment breakdowns and other operating or maintenance difficulties. Reports difficulties, and dispatches orders to other divisions to maintain or restore service and schedules. Dispatches extra vehicles and emergency crews to scene of accident or breakdown. Maintains log of scheduled and special runs, numbers of vehicles and attendance records of regular and part-time drivers. Makes written reports of accidents. Controls and issues passenger transfers to vehicle operators. Maintains lost and found service for articles left on vehicles by passengers. May suspend operators for infractions of regulations.

GED: 4 SVP: 5 PA: L 4 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> 3 3 4 3 4 4 4 5 5	1	4 5 9 1

9179-114 ROUTE PLANNING ANALYST (motor trans.)

Analyzes, develops and maintains plans for transit routes and stops of urban transit system:

Conducts studies related to transit operations, including investigations of requests for route and stop changes. Performs field observations and checks of transit-vehicle movements and loadings, flow of other vehicular and pedestrian traffic, traffic signals, parking restrictions and vehicle speeds. Prepares plans and proposals for movement and safety of transit vehicles. Submits reports on results of studies including applications and supporting evidence to governmental authorities for route or stop changes. Prepares estimates and forecasts of equipment and manpower requirements, mileages and cost estimates related to route planning, and other types of studies. Assists in developing new transit routes, route extensions, and in preparing annual mileage budgets. Performs draughting duties concerned with preparing and maintaining drawings, plans, charts and graphs required for route records and proposed route changes. Answers enquiries from

public and civic or municipal offices regarding changes in stop locations and transit traffic conditions.

GED: 3 SVP: 6 PA: L 4 5 6 EC: I DPT: 2 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 3 3 3 3 3 5 5	1 2	9 0 Y 1

9179-118 DISPATCHER, MOTOR VEHICLES (motor trans.)

Assigns drivers and motor vehicles for conveyance of freight:

Assigns vehicles according to factors, such as length and purpose of trip, freight requirements, and preference of user. Issues keys, record sheets, and credentials to drivers. Maintains status board listing availability of equipment and drivers, and assignments. Records time of departure, destination, cargo, and expected time of return. Investigates overdue vehicles. Dispatches replacements for vehicles disabled by accident or mechanical breakdown. Maintains record of mileage, fuel used, repairs made, and other expenses. May establish services or delivery routes. May supervise loading and unloading. May issue equipment, such as, hand trucks, dollies, and protective clothing to drivers. May send orders and messages to vehicles on the road, using radio, telephone and other communications equipment.

GED: 3 SVP: 5 PA: S 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 3 4 4 4 5 5	1	4 5 9 1

9179-122 SCHEDULE MAKER (motor trans.)

Prepares schedules for local bus transportation system:

Studies passenger riding patterns, changing traffic conditions and schedules of competing lines. Determines number of trips to be made and number of vehicles available. Prepares schedules, considering arrival and departure times of vehicles at crosslines or junction points where passengers can transfer. Prepares daily and weekly reports such as, operator hours, assignment sheets and fare box check-in sheets. Computes bus mileage on new or extended routes. May estimate cost of revised schedules.

GED: 3 SVP: 5 PA: S 4 EC: I DPT: 3 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 3 3 4 4 4 5 5	1	0 Y

9179-126 DISPATCHER, TAXICAB (motor trans.)

Dispatches taxicabs in response to telephone requests for service: Maintains operational map showing location of each cab or records destination of cabs in use on dispatch sheet. Receives telephone requests for service, and contacts drivers by radio or telephone to relay request. Logs calls relayed to each driver and address of patron. Arranges for relief cabs and drivers. May record fares received by

drivers on dispatch sheet. May dispatch taxicabs, using computerized dispatch system.

GED: 3 SVP: 4 PA: L 4 5 6 EC: I DPT: 1 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 4 3 4 4 4 5 5	2 1 3	2 5

Miscellaneous Vehicle Operators
9179-142 through 9179-166

9179-142 MOBILE SUPPORT EQUIPMENT OPERATOR
(military)

Drives variety of vehicles used in Canadian Forces:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN** (military). Drives buses, tank trucks, recovery vehicles, tractor-trailer combinations, snow and ice control equipment, tractors and automobiles. Inspects brakes, tires, lights, horns and cooling and refrigeration equipment. Maintains vehicle check lists, logs, records, reports and manifests. Assists in loading and unloading passengers and material. Operates two-way radio. Operates power operated mobile engineering equipment to load materials and to maintain runways and grounds.

GED: 3 SVP: 6 PA: M 4 7 8 EC: B DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 4 4 4 4 4 3 4	9 1	0 Y

9179-146 AMBULANCE DRIVER (motor trans.)

Drives ambulance to transport sick, injured or convalescent persons:

Lifts patient onto wheeled cart or stretcher and into and out of ambulance with help of ambulance attendant. Drives sick or injured persons to hospital, or convalescents to destination, using knowledge and skill in driving to avoid sudden motions detrimental to patients. Administers first aid to patients. Communicates with dispatcher to receive and transmit information, using radiotelephone equipment. Maintains records such as, name and address of sick or injured person, time, and other pertinent information related to situation attended. Changes soiled linen on stretcher. May be required to assist in rescue work to extricate victims from accident scenes such as, automobile, aircraft or train crashes.

GED: 3 SVP: 5 PA: VH 4 5 6 7 8 EC: B 5 6 DPT: 3 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 4 4 3 4 3 3 4	9 4 1	8 0 9 Y 5

9179-150 MOTOR VEHICLE JOCKEY (motor trans.)

Drives motor vehicles for establishments such as, automobile manufacturers, distributors, body rebuilders, or mechanical repair shops:

Picks up and delivers motor vehicles such as, cars, buses, trucks, tractors and fire engines from or to purchasers, distributors and body rebuilders. Shuttles vehicles between departments of establishment.

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Drives vehicles from marshalling area to rail car or transporter truck for loading. May maintain delivery records.

GED: 3 SVP: 4 PA: M 4 7 8 EC: I DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	9 3 1	2

9179-154 HOSTLER, TRUCK (motor trans.)

Drives trucks to and from service department and around dock area of motor freight transportation company.

Spots trailers at assigned dock space for loading and unloading, using tractor. Connects or disconnects trailers from tractors by raising or lowering dolly wheels on trailer and by coupling or uncoupling air brake hoses and electrical cables. Drives trucks to and from servicing area.

GED: 3 SVP: 4 PA: M 2 3 4 7 8 EC: O 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	9 3 1	2 Y

9179-158 MUSKEG TRACTOR OPERATOR (motor trans.)

Operates tractor-type vehicle to transport personnel and materials over muskeg, swamp, or rough ground during construction, logging, or other operations.

Fastens sled to tractor, using hitchpins. Drives vehicle by releasing brakes, shifting gears, and moving hand throttle to control movement. Steers tractor by moving levers and depressing brake pedals. Performs minor repairs, using hand tools. May load vehicle or sled by hand or winch, and secure load with chains and cables.

GED: 3 SVP: 4 PA: H 3 4 7 8 EC: O 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	9 3 1	2 Y

9179-162 CAR RENTAL SERVICER (motor trans.)

Services rental cars and delivers them to car rental office locations. Cleans interior and exterior of automobile, using vacuum cleaner, cleaning compounds, hose and cloth. Fills fuel tank with gasoline, diesel or other fuel. Observes level of fluid in crankcase, battery, and radiator, and adds required amount of oil or water. Performs minor repairs and adjustments, using hand tools and testing devices. Drives automobile to car rental office, or from one rental location to another. May pick up customer at residence and transport to rental office.

GED: 2 SVP: 4 PA: L 3 4 7 8 EC: I 4 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	1 9 3	2 Y

9179-166 MOTOR SCOOTER OPERATOR (motor trans.)

Drives two- or three-wheeled motor scooter to pick up and deliver items such as, merchandise, mail, tools, equipment and other materials in commercial or industrial establishments.

Verifies operating condition of vehicle by checking items such as, fuel supply, oil pressure, tires and brakes. Loads merchandise, mail, tools, equipment and other materials into carrying compartment and delivers them to designated person or department. May obtain or give receipt.

GED: 2 SVP: 2 PA: M 4 7 8 EC: B 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	9 3 1	2 3 Y

Other Motor Transport Operating Occupations 9179-186 through 9179-199

9179-186 TRUCK SPOTTER (motor trans.)

Directs positioning of trucks for loading or unloading at establishment such as, mine or mill, performing one or more of the following duties: Signals truck driver to position truck near loading shovel, using standard hand signals or radio communication equipment. Directs truck driver to position truck for unloading at conveyor, stock pile, or dump. Examines loading or unloading area for hazards such as, depressions or cracks, and reports hazards for remedial action. Removes large pieces of fallen material from truck paths to prevent damage to truck tires.

GED: 2 SVP: 2 PA: L 4 5 6 EC: O DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> <u>4</u> <u>4</u> 5	3 1	2 3

9179-190 TRUCK DRIVER HELPER (motor trans.)

Helps truck drivers in transporting and handling materials, merchandise and equipment by performing any combination of the following duties:

Loads and unloads vehicles by hand or using hand truck or dolly. Pads, stacks, and secures items in position in truck to prevent damage during shipment. Delivers and stacks merchandise on customers' premises and obtains receipt. Signals truck driver when parking or backing into loading area. Helps truck driver in cleaning and servicing vehicle. See also definition for term title, **02-160 HELPER (any ind.)**. May help driver of specific type of vehicle and be designated accordingly.

GED: 2 SVP: 2 PA: H 2 3 4 EC: I 5 DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> <u>3</u> 4 5	3 1	2 3

9179-194 DUMP ATTENDANT (motor trans.)

Directs traffic flow of trucks, bulldozers, graders and other equipment at open-pit mine, quarry or other dump site.

Signals and guides bulldozer and grader operators engaged in construction and maintenance of berm (rocks piled on edge of dump to

prevent drivers from backing over edge). Inspects berm to ensure it conforms to safety regulations. Directs truck drivers to required location, using hand signals. Controls traffic interference between trucks, bulldozers and graders. Reports improper dumping procedures or unstable conditions around dump site to supervisor.

GED: 2 SVP: 2 PA: L 4 EC: O 5 6 7 DPT: 6 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 4 5 4 4 4 4 5	3 1	2 3

919-OTHER TRANSPORT AND RELATED EQUIPMENT OPERATING OCCUPATIONS

This minor group includes occupations, not elsewhere classified, concerned with operating subway trains, streetcars, dinkey engines, snow removal equipment and sweeping machines, and co-ordinating the movement of trains, trucks or other mobile equipment. MATERIAL HANDLING AND RELATED OCCUPATIONS are in Major Group 93. OTHER TRANSPORT AND RELATED EQUIPMENT OPERATING OCCUPATIONS are classified in the following unit groups:

- 9190** Supervisors, Other Transport and Related Equipment Operating Occupations
- 9191** Subway and Street Railway Operating Occupations
- 9193** Rail Vehicle Operators, Except Railway Transport
- 9199** Other Transport and Related Equipment Operating Occupations, n.e.c.

9190-SUPERVISORS, OTHER TRANSPORT AND RELATED EQUIPMENT OPERATING OCCUPATIONS

This unit group includes occupations, not elsewhere classified, as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in the operation of other transport and related equipment.

- 9190-110** FOREMAN/WOMAN, RAIL VEHICLE OPERATORS, EXCEPT RAIL TRANSPORT (mining & quarrying)

Supervises and co-ordinates activities of workers engaged in operating dinkey engines and similar equipment in mines, quarries and industrial yards (Unit Group 9193):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

- 9190-114** SUPERVISOR, SUBWAY AND STREET RAILWAY OPERATING OCCUPATIONS (motor trans.)

Supervises and co-ordinates activities of workers engaged in operating subway trains and streetcars to transport passengers (Unit Group 9191):

9179-199 MISCELLANEOUS MOTOR TRANSPORT OPERATING OCCUPATIONS

This residual group includes motor transport workers not presently classified in Minor Group 917.

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/ WOMAN** (any ind.).

DPT: 1 3 8

9190-199 MISCELLANEOUS SUPERVISORS, OTHER TRANSPORT EQUIPMENT OPERATING OCCUPATIONS

This group includes occupations, not elsewhere classified, as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating the activities of workers engaged in transport equipment operating activities, and related occupations not presently classified in Unit Group 9190.

9191-SUBWAY AND STREET RAILWAY OPERATING OCCUPATIONS

This unit group includes occupations concerned with operating subway trains and streetcars to transport passengers.

9191-110 STREETCAR OPERATOR (rail trans.)

Drives electric powered streetcar to transport passengers: Drives streetcar according to traffic regulations and observes traffic lights and other vehicles on street. Opens and closes doors and starts and stops streetcar to allow passengers to enter or leave vehicle. Collects fares from passengers and issues transfers. Answers questions

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from passengers concerning fares, schedules, and routings. Picks up fare box and transfers on completion of duty.

GED: 3 SVP: 4 PA: L 4 5 6 7 8 EC: I 5 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 3 4 3 3 4 3 3 3 4	9 2 3	2 Y 5

9191-114 SUBWAY TRAIN OPERATOR (rail trans.)

Operates subway train as member of two-person crew to transport passengers on urban subway transit system, alternating the following duties with co-worker:

Operates subway train from cab of front car, observing railway signal system. Stops train at subway stations to allow passengers to board or leave train. Exchanges position with co-worker at end of run to reduce fatigue. Takes position in cab centre car and observes that doors are clear for closing. Operates controls to open and close doors. Blows whistle to signal driver that doors are clear.

GED: 3 SVP: 4 PA: L 4 5 6 7 8 EC: I 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 3 4 5 4 4 3 3 4	9 3	2 Y

9191-199 OTHER SUBWAY AND STREET RAILWAY OPERATING OCCUPATIONS

This residual group includes subway and street railway operating occupations not presently classified in Unit Group 9191.

9193-RAIL VEHICLE OPERATORS, EXCEPT RAILWAY TRANSPORT

This unit group includes occupations concerned with operating dinkey engines and similar equipment in mines, quarries and industrial yards. Activities include: connecting and disconnecting cars, throwing track switches, spotting cars for loading and unloading; loading and unloading cars when activities are integral part of operation of dinkey engines.

9193-110 DINKEY ENGINE OPERATOR (mining & quarrying; rail trans.)

Drives gasoline, electric, or diesel dinkey engine on underground or surface railway system to haul and shunt cars at mine, quarry or industrial establishment:

Operates dinkey engine by moving power controls and brake levers. Signals other workers, vocally or using hand, whistle or lantern signals, to couple and uncouple cars. Positions cars for loading or unloading according to signals or instructions. Inspects engine at beginning and end of shift. Lubricates engine, using grease gun and oil can, and refuels combustion engines. May throw switches, and couple and

uncouple cars. May move levers to open or tilt cars to dump materials. May be designated according to type of engine driven or work area.

GED: 3 SVP: 4 PA: L 4 5 6 7 8 EC: B 5 6 7 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 4 5 3 4 3 4 4	9 1 3	2 Y

9193-114 SHUTTLE CAR OPERATOR (mining & quarrying)

Drives electrically powered shuttle car in underground mine to transport materials from working face to mine cars or to conveyor: Drives shuttle car under discharge conveyor of loading machine, and ensures that materials are properly loaded. Manoeuvres shuttle car to keep its nose under discharge conveyor of loading machine. Controls conveyor of shuttle car to distribute load as loading progresses. Drives loaded shuttle car to ramp and moves controls to discharge load into mine cars or onto conveyor. May shovel spillage into shuttle car or onto conveyor.

GED: 3 SVP: 4 PA: M 4 7 EC: I 5 6 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 3 4 5 3 4 3 3 5	9 1 3	2 Y

9193-118 QUENCHING CAR OPERATOR (trans., n.e.c.)

Operates diesel or electric locomotive to haul hot coke from oven to quenching station and wharf:

Positions dump car, coupled to locomotive, below coke-guide on designated oven. Signals pusher operator, using horn, to discharge coke or stop pushing when irregularity occurs. Moves car forward to distribute coke evenly in car. Transports coke to quenching station, spots car under sprays and starts equipment that sprays hot coke with measured amount of water. Drives car to wharf and turns air valve to open gates on car to dump coke onto wharf. Cleans locomotive cab, using cleaning agents, broom and brushes.

GED: 2 SVP: 3 PA: L 4 7 EC: I 3 4 5 6 7 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 3 4 5 3 4 3 4 5	9 1 3	2 Y 3

9193-122 TRANSFER HOIST OPERATOR (construction)

Operates pneumatic hoist that travels on rails to transfer empty or loaded dinkey cars between mucking machine and return sidings in tunnelling operation:

Hooks hoist lines into lift-hooks on dinkey car. Moves level to control hoist that lifts car and pushes button that activates lateral transfer mechanism to move car to parallel track. Operates lever to lower car onto track. Signals dinkey engine driver to remove loaded car or

position empty car at mucking machine using lantern. Pushes hoist along rails as tunnelling progresses.

GED: 2 SVP: 3 PA: M 4 EC: I 4 5 6 7 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C	9 1 3 2	2 Y 3
4 4 5 <u>4</u> 4 5 <u>3</u> 4 <u>4</u> 4 5		

9193-126 KILN TRANSFER OPERATOR (furn; sawmill)

Drives powered flat car to transfer carloads of lumber from loading platform to dry kilns and to storage, and operates winch to load and unload kilns:

Drives transfer car to loading platform and aligns rails on transfer car with rails on loading platform. Hooks winch cable to carload of lumber and operates winch to pull loaded lumber car onto transfer car. Drives transfer car with carload of lumber to designated dry kiln and aligns transfer car rails with rails in kiln. Hooks cable to lumber car and operates winch to pull lumber car into kiln. Pulls lumber car from kiln and transfers it to storage or to processing department when dry. May tend machine to stack and unstack lumber onto lumber car.

GED: 2 SVP: 3 PA: M 4 7 EC: B DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C	9 1 3	2 Y 3
4 4 5 <u>4</u> 4 5 <u>3</u> 4 <u>4</u> 3 5		

9193-130 DINKEY ENGINE BRAKE WORKER (mining & quarrying; rail trans.)

Works as member of dinkey engine crew on underground or on surface railway at mine, quarry or industrial establishment:

Uncouples cars at their destination. Throws switches to route cars to sidings or loading areas and signals operator to start and stop dinkey engine. Opens and closes ventilation doors in mine. Loads cars, using conveyor belt, or by opening chutes and unloads material by moving levers on cars. Walks ahead of locomotive at crossings and blind corners, or operates signal lights to warn plant traffic of oncoming locomotive. Assists in replacing derailed cars on track. May be designated according to work area or type of locomotive.

GED: 2 SVP: 2 PA: M 3 4 7 EC: B 5 6 7 DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C	3 1	2 3
4 4 5 <u>4</u> 4 5 <u>4</u> 4 <u>3</u> <u>4</u> 4		

9193-134 CAR DROPPER (mining & quarrying; rail trans.)

Performs any combination of the following tasks at mine sidings, loading chutes, tipples or scales concerning the loading and positioning of mine cars:

Rides car or group of cars down grade and regulates their rate and length of travel by applying hand brakes. Starts cars moving, using manual car mover (pinch bar) positioned between car wheel and track. Operates power winch to pull improperly positioned cars under loading chute, or to ease cars down incline. Applies hand brakes to string of cars shunted by train crew. Couples and uncouples cars and air hoses. Throws switches to guide cars onto or from sidings. Places scotches between car wheel and rail to secure mine cars in position. Opens and

closes bottom doors of cars manually to dump contents. Cleans spillage from track area at loading chute, using pick, bar and shovel.

GED: 2 SVP: 2 PA: M 2 4 EC: O 5 6 7 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C	3 1	2 3
4 4 5 <u>4</u> 4 5 <u>4</u> 4 3 4 5		

9193-199 OTHER RAIL VEHICLE OPERATORS, EXCEPT RAILWAY TRANSPORT

This residual group includes rail vehicle operators not presently classified in Unit Group 9193.

9199-0 OTHER TRANSPORT AND RELATED EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with the operation of transport and related equipment and providing direct operational support. Activities include: co-ordinating movement of trains, truck and other mobile equipment at mines and industrial plants; driving snow removal equipment; preparing transit vehicles for daily use; acting as information and enforcement personnel in transport terminals; sweeping streets and operating vehicles equipped to travel on land and rail.

9199-110 DISPATCHER, MINE (motor trans.; rail trans.)

Co-ordinates movements of haulage trips of trains, trucks and mine cars, in establishments such as, underground mines and quarries: Schedules movements of vehicles hauling coal, ore, refuse, personnel or supplies in accordance with requirements and capacity of systems. Directs movements of special vehicles such as, emergency and repair cars, to minimize interference with scheduled operations, using radio, telephone or other means of communication. Reroutes vehicles in event of emergency such as, power failure or fire. Investigates cause of vehicle movement delay and reschedules subsequent operations, using communication system. Transmits reports of accidents or system malfunctions to repair crew and designated authorities. Keeps records of vehicle movements. May move controls to throw track switches to regulate movement of trains.

GED: 3 SVP: 6 PA: S 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C	1	4 5 9 1
3 <u>3</u> 4 3 4 <u>3</u> 4 4 4 5 5		

9199-112 SUBWAY TRAFFIC CONTROLLER (rail trans.)

Monitors and operates signal and track switch control panel of subway system:

Observes control panel to monitor safe movement of trains throughout entire subway system. Pushes buttons on control panel to permit automatic operation of signals and track switches for normal operation of trains. Operates control panel manually during breakdown of

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automatic controls to ensure continued use of tracks in interlocking areas including service through terminal crossovers, turn backs and centre track locations. Pushes buttons on control panel to reroute trains in event of emergency such as derailment, collision, power failure or fire. Notifies control centre of any irregularities or unusual conditions affecting service, using telephone or two-way radio. Reports to safety or security department, any indications of fire shown on smoke alarm equipment, using telephone or two-way radio. Relays information received from subway inspectors, equipment department personnel, signal maintainers, electricians or track patrollers, to control centre, using telephone or two-way radio.

GED: 3 SVP: 6 PA: S 5 6 7 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> 4 4 4 4 4 5 4	9 1	0 Y

9199-114 DISPATCHER, PLANT (trans., n.e.c.)

Dispatches, routes and co-ordinates the movement of railway rolling stock and other mobile equipment such as, cranes, loaders and trucks within industrial plant or other establishment:

Reads previous shift report and other documents to become familiar with existing situation and requirements. Plans movement of trains and equipment and issues orders to crews, considering items such as, priority, possible lost time and dead mileage to determine most efficient utilization. Changes priorities of service according to requirements and directs changes by radio or telephone. Schedules operating crews and replacements for absentees. Arranges transportation for workers to and from work sites. Reroutes traffic at scene of accident, breakdown or emergency. Requests police, fire or medical assistance, and contacts appropriate repair or recovery personnel. Arranges with railway company to move freight cars to and from premises. Maintains record of movements and location chart of equipment.

GED: 3 SVP: 5 PA: L 4 5 6 7 EC: I DPT: 1 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 <u>3</u> 4 3 4 <u>3</u> 4 4 4 5 5	1	4 5 9 1

9199-118 DEPOT CLERK (motor trans.; rail trans.)

Works as member of office staff in passenger transport depot, performing any combination of the following duties:

Prepares lists of operating personnel available for assignment to regular, extra or special runs. Assigns personnel to meet daily manpower needs of company according to seniority, experience, time, location and duration of assignment. Prepares and issues fare boxes and transfers to vehicle operators. Receives property lost by patrons from operators and records type of article and time and place found. Issues uniforms and accessories such as, watches, punches, keys and street guides to operators. Assists operators in completing accident or breakdown reports. Estimates charter fares. Ensures that all vehicles on check sheet are accounted for and reports irregularities to control officer. Prepares reports regarding mileage and running times of all trips, gasoline and oil purchases, time sheets and transfer and farebox

summaries. May be designated according to particular activity in which engaged.

GED: 3 SVP: 4 PA: L 4 5 6 EC: I DPT: 3 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 <u>3</u> <u>3</u> 4 4 <u>3</u> 4 4 4 5 5	1 2	0 Y 1

9199-122 SNOW REMOVAL EQUIPMENT OPERATOR (air trans.; gov. serv.)

Operates gasoline or diesel powered snow removal equipment such as, plough, blower, crawler tractor, grader, salt and sand spreader or high speed sweeper to remove snow from airport runways, taxiways and aprons or provincial highways:

Attaches or removes front of side mounted plough blade or extension, sweeper attachment, salt or sand hoppers and tail gate spreaders. Connects hydraulic or electric control systems. Maintains voice radio contact with control tower or other authority to request or receive information such as, authorization to operate vehicle on line runway. Starts vehicle, observes gauges, moves hand and foot controls to drive vehicle, lower, raise or change angle of blade, and actuate salt or sand spreading devices. Drives vehicle, as directed, to remove snow, slush and other surface contaminants from runways, roads and other surfaces, exercising care to prevent damage to lighting systems, hydrants and other structures. May perform other seasonal duties such as, landscaping, repairing cracks and holes in asphalt or concrete, painting markings on runways and highways, placing and removing snow fences and outline markers, and spraying herbicides, insecticides and sterilizers. May be designated according to equipment operated or specific location of snow removal operations.

GED: 3 SVP: 4 PA: H 4 5 6 7 8 EC: O 4 5 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	9 1 3	2 Y

9199-126 HOSTLER, TRANSIT SYSTEM (motor trans.; rail trans.)

Prepares transit vehicles such as, streetcars, trolley buses, subway cars and buses for service, and marshals vehicles according to schedule requirements, performing any combination of the following duties:

Reads odometers and refers to maintenance charts to ascertain if vehicles require servicing. Drives vehicles, informs other workers to drive vehicles, or operates manual or electrical switches to direct vehicles to selected track for repair, inspection, cleaning or outgoing service. Services vehicles with fuel and oil. Checks operation of vehicle equipment such as, lights and two-way radio. Prepares vehicles by setting route, destination or run-number signs according to schedule requirements. Marshals vehicles in outgoing area according to departure times, referring to starting sheet. Observes departing vehicles and records late departures and other irregularities on starting sheet. Sweeps, dusts and washes vehicles.

GED: 2 SVP: 5 PA: M 4 7 8 EC: B DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 5	3 1 9	2 0 Y

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9199-130 SNOW REMOVAL EQUIPMENT OPERATOR, URBAN (gov. serv.; trans., n.e.c.)

Operates gasoline or diesel powered snow removal equipment such as, plough, blower or truck, and grader fitted with plough blade or other attachments to remove snow from streets, parking lots and other urban areas:

Starts vehicle, observes gauges, moves hand and foot controls to drive vehicle, lower, raise or change angle of blade and actuate salt or sand spreading devices. Drives vehicle over predetermined route to remove snow and slush from streets, parking lots, recreation and other areas. May perform other seasonal duties such as, repairing asphalt and concrete streets, collecting garbage, landscaping and maintaining parks and carrying out maintenance on water supply and sewage disposal systems.

GED: 3 SVP: 3 PA: M 4 7 8 EC: O 4 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 3 4 5 3 4 3 3 5	9 1 3	2 Y

9199-134 TRANSPORT TERMINAL ATTENDANT (any ind.)

Acts as information and enforcement officer in transport terminal, performing any combination of the following duties:

Provides information to passengers concerning transport arrival and departure times, routes, appropriate gates or loading bays and baggage checking facilities. Controls queuing and loading of passengers. Regulates parking and movement of automobiles, trucks and taxis on company premises. Patrols buildings to regulate pedestrian traffic and eject undesirable persons. Ensures passageways are not blocked by people or baggage. Submits written reports of specific incidents and recommendations regarding security and public usage of terminal facilities. Conducts periodic inspections of yard and building to ensure cleaning and maintenance duties are being performed. Requisitions maintenance supplies and materials.

GED: 2 SVP: 4 PA: L 5 6 EC: B DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 4 4 4 5	2 3	2

9199-138 SNOW PLOUGH OPERATOR, SIDEWALK (gov. serv.; trans., n.e.c.)

Operates small crawler tractor type vehicle fitted with snow-plough blade to remove snow from sidewalks in urban areas:

Starts vehicle, observes gauges, moves hand and foot controls to drive vehicle, and lower, raise or change angle of blade. Drives vehicle on sidewalks in specified area to remove snow or slush, exercising care to avoid pedestrians and prevent damage to utility poles, parking meters,

fire hydrants and other public or private properties. Lubricates and performs minor maintenance duties on vehicle.

GED: 2 SVP: 3 PA: M 4 7 8 EC: O 4 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 3 4 5 3 4 3 3 5	9 3 1	2 3 Y

9199-142 STREET SWEEPER OPERATOR (trans., n.e.c.)

Drives vehicle equipped with rotating brushes to remove sand, litter and trash from highways, streets, parking lots and driveways:

Fills water tank of machine from hydrant or faucet. Drives sweeper along street near curb. Moves controls to activate rotary brushes and water spray so that machine picks up dust and trash and deposits it in dirt trap at rear of machine. Pulls lever to dump refuse in piles at curb for removal. Cleans, lubricates and performs minor repairs to machine. May mount plough blade or scrubber accessories, using hand tools, and drive machine to clear snow or scrub working areas.

GED: 2 SVP: 3 PA: L 4 7 8 EC: O 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 3 3 5	9 3 1	2 3 Y

9199-146 TRACKMOBILE OPERATOR (rail trans.)

Drives vehicle, equipped to travel on land and rail, to move and spot railway cars or trailers:

Manipulates hydraulic control lever that raises or lowers trucks or wheels of vehicle for rail or road travel. Drives vehicle to move or spot railway cars or trailers by operating hand and foot controls. Throws track switches, and couples and uncouples cars when co-worker is available. Inspects vehicle at beginning and end of shift and services vehicle with fuel and oil.

GED: 2 SVP: 3 PA: M 3 4 7 8 EC: B 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 3 4 3 3 5	9 3 1	2 3 Y

9199-199 MISCELLANEOUS TRANSPORT AND RELATED EQUIPMENT OPERATING OCCUPATIONS

This residual group includes other transport and related equipment operating occupations not presently classified in Minor Group 919.

MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This major group includes occupations, not elsewhere classified, concerned with moving, lifting, loading and packaging materials and products. These occupations are classified in the following minor group:

931 Material Handling and Related Occupations, n.e.c.

931-MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This minor group includes occupations, not elsewhere classified, concerned with operating cranes, hoists and other material handling equipment to move material and store items in warehouses; loading ships, trains, aircraft, trucks and containers; and packaging goods, products or materials for shipping or storage. Passenger and freight elevator operators are classified in Unit Group 6193, ELEVATOR OPERATING OCCUPATIONS. MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C. are classified in the following unit groups:

9310	Foremen/women, Material Handling and Related Occupations, n.e.c.
9311	Hoisting Occupations, n.e.c.
9313	Longshore Workers, Stevedores and Freight Handlers
9315	Material Handling Equipment Operators, n.e.c.
9317	Packaging Occupations, n.e.c.
9318	Occupations in Labouring and Other Elemental Work, Material Handling, n.e.c.
9319	Other Material Handling and Related Occupations, n.e.c.

9310-FOREMEN/WOMEN, MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This unit group includes occupations, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in loading, moving and packaging products or materials.

9310-110 **FOREMAN/WOMAN, HOISTING OCCUPATIONS, N.E.C.** (any ind.)

Supervises and co-ordinates activities of workers engaged in lifting, moving and positioning loads; assembling rigging and splicing cables for hoisting; and erecting and using power operated cranes, hoists and winches, (Unit Group 9311); Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.). Specifies locations for movement and erection of derricks, hoists and cranes.

DPT: 1 3 8

9310-114 **FOREMAN/WOMAN, LABOURERS AND ELEMENTAL WORKERS, MATERIAL HANDLING** (any ind.)

Supervises and co-ordinates activities of labourers and other elemental workers, in loading or unloading materials and products from ships, trains, aircraft, trucks, other vehicles and containers; and in sorting, carrying, stacking or otherwise moving and storing goods and materials, (Unit Group 9318):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9310-118 **FOREMAN/WOMAN, LONGSHORE WORKERS, STEVEDORES AND FREIGHT HANDLERS** (any ind.)

Supervises and co-ordinates activities of workers engaged in loading and unloading ships, barges, trucks, rail cars, aircraft, other transportation conveyances and containers; operating and tending material handling equipment; assembling cargo in slings, piling goods on pallets to facilitate movement; stowing cargo in ships, rail cars, aircraft and trucks; and storing goods in warehouses, (Unit Group 9313):

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Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9310-122 FOREMAN/WOMAN, MATERIAL HANDLING EQUIPMENT OPERATORS, N.E.C. (any ind.)

Supervises and co-ordinates activities of workers, not elsewhere classified, engaged in operating material handling equipment such as, conveyors, industrial trucks and tractors, to load or unload or transfer materials, equipment or products to or from storage, trains, aircraft or trucks, (Unit Group 9315):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9310-126 FOREMAN/WOMAN, PACKAGING OCCUPATIONS, N.E.C. (any ind.)

Supervises and co-ordinates activities of workers, not elsewhere classified, engaged in selecting materials; assembling containers; covering articles or products with protective or other materials; filling, sealing, closing, labelling and stencilling packages or products; and tending filling, packaging and wrapping machines, (Unit Group 9317):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9310-199 OTHER FOREMEN/WOMEN, MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, as described under master title **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating the activities of workers engaged in material handling activities and related occupations not presently classified in Unit Group 9310.

9311-HOISTING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with lifting, moving and positioning loads, and operating equipment such as, power operated cranes, hoists and winches. Activities include: driving and operating machines; erecting and rigging cables; and attaching ropes, chains, slings and shackles. Occupations concerned with hoisting and moving logs are classified in Unit Group 7517, **LOG HOISTING, SORTING, MOVING AND RELATED OCCUPATIONS**.

9311-106 CRANE OPERATOR, DRILLING RIG (oil & nat. gas)

Operates cargo handling crane to unload and reload supply vessels, shift deck cargo and assist rig crew during operations on board drilling platform or vessel at sea:

Directs roustabouts in selecting suitable slings and lifting gear, securing of loads and in appropriate procedures while using crane.

Starts engine of crane and moves hand and foot controls to turn, raise or lower and centre boom over load before lifting. Moves crane controls to hoist and position load visually or in response to hand signals, allowing for heave of drilling rig and for movement of supply vessel when on- or off-loading cargo, and ensures that hoists are kept within lifting capacity of crane. Transfers personnel to or from supply boat by lifting and lowering personnel basket over side of drilling rig. Lifts and passes mooring lines, fuel, water and bulk material, and hoses to supply boat for replenishment of consumable materials. Assists drill crew in lifting, positioning and moving pipe, tools and other equipment on deck storage area or drilling floor. Assists engineer in running and pulling anchors by lifting, passing and retrieving anchoring gear, buoys and lines to anchor handling boat. Inspects and maintains crane boom and controls, and lifting gear such as, sheaves, wire lines, block and swivels. Checks fluid level and hydraulic lines and lubricates components, as specified. Inspects engine and accessories and changes oil and filters. Maintains inventory of slings and lifting gear. Logs maintenance activities, repairs and replacements made to cranes and equipment.

GED: 4 SVP: 6 PA: L 2 4 7 8 EC: B 5 6 DPT: 6 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 2 5	9 1	Y

9311-110 ELECTRIC GANTRY CRANE OPERATOR (any ind.)

Operates bridge or gantry crane, consisting of hoist and operator's cab mounted on bridge that runs along track, to lift, move and load machinery containers, equipment and variety of loose materials, performing any combination of the following tasks:

Moves pedals and levers and pushes buttons to regulate direction of crane and hoist movement in response to signals from worker on floor. Observes load hookup and verifies safety of load. Transfers supplies to initial production points. Moves materials between machines or equipment in main production flow or subsidiary operations, charges (inserts) materials such as, molten metal and ingots into furnaces and machines. Transfers scrap and waste to storage piles or railroad cars and aids in placing parts such as, rollers, shafts, or motors in machines and equipment. Cleans and lubricates crane and makes minor repairs such as, replacing cables. Inspects crane for defective parts and notifies supervisor of mechanical or electrical malfunctions. May be designated according to material handled, or operation performed.

GED: 3 SVP: 5 PA: L 4 7 8 EC: B 5 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	1 9	2 Y

9311-114 FLOATING CRANE OPERATOR (water trans.)

Operates crane, mounted on boat or barge, to lift and move heavy objects:

Moves control levers and pedals to start, control speed, turn or extend crane boom, and to raise and lower boom and load. Moves and positions load visually in response to hand signals. Periodically inspects

and lubricates crane equipment. May move engine controls to propel vessel from place to place.

GED: 3 SVP: 5 PA: L 4 7 8 EC: O 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	1 9 3	2 Y

9311-118 HOIST OPERATOR (any ind.)

Operates compressed air, diesel, electric, gasoline or steam drum hoists to control movement of cableways, cages, derricks, draglines, loaders, mine cars or skips that move workers and materials for mining, sawmill, construction and other industrial operations:

Starts hoist engine and moves hand and foot controls to wind or unwind cable on drum. Starts, stops and regulates speed of drum, using hand or foot controls, in response to audio or visual signals such as, bell, telephone, dial indicator, marks on drum or cable, to position cage, skip, mine cars or load, as required. Inspects, lubricates and adjusts brakes and equipment, using hand tools. May lock hoist in position, using hand and foot controls. May operate hoist with more than one drum. May be designated according to equipment controlled.

GED: 3 SVP: 5 PA: M 4 6 7 8 EC: I 5 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> <u>3</u> 4	1 9 3	2 Y

9311-122 LOCOMOTIVE CRANE OPERATOR (rail trans.)

Operates crane that moves on railroad tracks to lift and move objects and materials:

Starts locomotive motor to supply power. Pushes pedals and pulls levers to move, control speed and stop crane; or to turn crane boom and raise or lower cables attached to load. Views and compares weight of load with lifting capacity of crane to ensure against overloading crane. Operates controls to move and position load by sight or at direction of helper on ground. Inspects cables and grappling devices for wear. Installs or replaces cables. Performs maintenance tasks such as, oiling and greasing moving parts of crane. May position railroad cars in company yard, using locomotive crane. May be designated by type of power unit operated.

GED: 3 SVP: 5 PA: M 4 6 7 8 EC: B 5 6 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	9 1 3	2 Y

9311-124 SIDE BOOM TRACTOR OPERATOR (construction)

Operates tractor, equipped with side boom, to move, hold and position pipes and equipment during construction of oil and natural gas pipelines:

Operates side boom tractor's hand and foot controls to drive and position machine adjacent to pipeline in response to hand signals of other workers. Operates tractor controls to unload, pick up, position and hold pipe during pipe bending and pipe welding operations, and to lower pipe into trenches. Operates controls to lower and hold boring

machine and casing pipe in position in trench at tie-ins. Signals other workers to hook tractor cables or slings around pipe or equipment to be lifted or moved. Operates controls to unload and position preheaters, pipe cleaning and covering machines, drills and other equipment.

GED: 3 SVP: 5 PA: L 4 7 8 EC: B 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	9 1	2 Y

9311-126 TOWER CRANE OPERATOR (ship & boat bldg.)

Operates electrically powered derrick, mounted on pedestal or structure, that travels along ground tracks, to lift and move heavy objects such as, plates, assemblies and machinery:

Moves levers in response to ground signals to rotate boom, alter angle of boom, move crane along tracks and raise or lower load. Views load to ensure material or object to be lifted is within lifting capacity of crane. Inspects, lubricates, and maintains equipment such as, cables and attachments.

GED: 3 SVP: 5 PA: S 4 7 8 EC: I 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	1 9 3	2 Y

9311-130 TRACTOR CRANE OPERATOR (construction; mining & quarrying)

Operates diesel, gasoline, or electric powered crane mounted on crawler treads to lift and move materials and objects:

Starts engine and drives crane to work site, steering crane by moving levers and pressing pedals that control motion of crawler treads. Pushes and pulls levers and presses pedals, in response to hand signals, to rotate crane on chassis and raise and lower crane boom and loadline. Monitors crane loading to ensure weight of load is within lifting capacity of crane. Drives crane to reach objects beyond range of boom. Inspects and adjusts crane tractor and crane equipment such as, cables and controls. Lubricates tractor and crane. May operate special type of crane attachment and be designated accordingly.

GED: 3 SVP: 5 PA: M 4 7 8 EC: B 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	9 1 3	2 Y

9311-134 TRUCK CRANE OPERATOR (any ind.)

Operates gasoline or diesel powered truck mounted crane to lift and move materials and objects:

Drives crane to work site and positions it in working area. Ensures blocks and outriggers are securely placed to prevent crane from capsizing when lifting heavy loads. Starts crane engine. Depresses levers and pedals to move, control speed, turn or extend crane boom; and to raise and lower crane boom and load. Moves and positions load visually or in response to hand signals. Drives crane to move objects beyond range of boom. Monitors crane loading to ensure weight of load is within lifting capacity of crane. Periodically inspects, adjusts, and lubricates truck and crane equipment such as, cables, controls,

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tires, lights, and brakes. May perform running repairs such as, changing tires and replacing crane cables. May be designated according to crane attachment used or material moved.

GED: 3 SVP: 5 PA: M 4 7 8 EC: B 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 3 4 <u>3</u> <u>3</u> 5	1 3 9	2 Y

9311-138 RIGGER (any ind.)

Assembles and installs rigging to lift and move machinery or other heavy objects in manufacturing plants, shipyards and other locations: Examines objects to be moved, estimates weight and determines type of rigging equipment required. Selects cables, ropes, pulleys, blocks, winches and chains according to weight and size of load to be moved. Attaches pulleys and blocks to fixed overhead structures such as, beams, ceilings, tracks and gin poles, using bolts and clamps. Erects and hangs working platforms. Selects or makes grappling devices such as, loops, wires and ropes and attaches to load, using hand tools. Hangs or loops sling in hook to hoisting cable. Guides the lifting and moving of objects to ensure safety of personnel and equipment and to move loads through spaces and around objects, in order to place objects in exact positions, using hand or other signal system. Sets up, braces and rigs hoisting equipment, using hand tools. Splices ropes and wire cables to make or repair slings and tackle, using hand tools.

GED: 3 SVP: 4 PA: H 2 3 4 7 EC: B 5 6 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 4 5	1 3 9	2 Y

9311-142 CANTILEVER CRANE OPERATOR (any ind.)

Operates electric powered hoisting crane, equipped with cantilevers or boom (horizontally extended structural steel framework), to move, raise and lower objects and materials on construction sites and in shipyards:

Manipulates hand and foot controls to rotate boom, move tower crank along boom to position hoisting bucket or attachments, and raise, lower and move objects or materials, in response to hand or audio signals from crew workers. Assists workers erecting, dismantling and adding sections to tower of crane for high-rise construction. Inspects cables and equipment to detect wear or damage and report findings to foreman/woman. May replace worn hoist cables, adjust brakes and perform minor repairs to crane equipment.

GED: 3 SVP: 4 PA: L 4 7 8 EC: I DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> <u>3</u> 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	3 1 9	2 Y

9311-143 CRANE OPERATOR APPRENTICE (any ind.)

Performs duties of **9311-142 CANTILEVER CRANE OPERATOR** (any ind.) on a progressive basis according to training schedule. See also definition for term title, **02-010 APPRENTICE** (any ind.).

9311-146 ELECTRIC MONORAIL CRANE OPERATOR (any ind.)

Operates monorail crane to lift, move and load machinery, equipment and a variety of materials:

Moves hand and foot controls to guide crane along overhead rail and to raise and lower load cable. Raises, moves, and lowers load following signals of workers on floor. Sounds warning bell to alert workers of danger from load of approaching crane. May inspect, clean, and lubricate crane. May be designated according to material moved or by operation performed.

GED: 3 SVP: 4 PA: L 4 7 8 EC: I 5 6 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 <u>5</u> <u>3</u> 4 5 3 4 <u>3</u> <u>3</u> 5	1 9 3	2 Y

9311-150 HIGH RIGGER, THEATRE (broadcast., motion pic. & stage)

Installs rigging to raise, lower or support stage equipment and erects sets for theatrical productions:

Climbs ladders or scaffolding to determine position for rigging. Attaches cables, ropes, and pulleys across loft area of stage to install rigging. Tests apparatus to ensure that it is workable. Ties sets with lash lines. Lowers sets to stage, using rigging. Hooks and adjusts stage brace onto set to erect, straighten and support set, using hand tools and power tools. Changes scenery between acts or scenes according to script, assisted by stage crew. May erect equipment for acrobatic and aerial acts.

GED: 3 SVP: 4 PA: H 2 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> <u>3</u> 4	1 9 3	2 Y

9311-154 SKIP OPERATOR (iron & steel)

Operates electric charging car and skip hoist to transfer raw materials from storage bins or loading station to blast furnace:

Moves controls of electric charging car to position car under chute of storage bin. Pulls lever to open bin, filling car with raw materials such as, iron ore, coke, limestone and scrap metal. Drives car onto scale to weigh materials in car. Positions car on skip pit and pulls lever to dump contents into skip car. Moves control of skip hoist to transport skip car up inclined ramp and dump contents into furnace. Records data such as, number of charges, weight of materials and stock levels in furnace. Cleans lodged material out of car, using bar, shovel and broom. May clean, oil and grease car.

GED: 2 SVP: 4 PA: M 4 7 8 EC: B 4 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 4 5	1 3 9	2 3 Y

9311-158 FLYMAN/WOMAN (amuse. & rec.)

Manipulates raising and lowering devices to change stage scenery and props:

Pulls ropes from position above or to one side of stage, or operates electric hoist, to move scenery and props between stage and loft. Follows prepared cue sheet or signal to effect required changes during performance. Opens and closes curtain, using ropes or electrical device. Positions scenery and props to designated place on stage, manually. Secures scenery and props in place on stage, using power tools.

GED: 2 SVP: 4 PA: M 4 5 7 EC: 1 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 4 4	1 9 3	2 Y

9311-162 WALKING BRIDGE CRANE OPERATOR (any ind.)

Operates overhead bridge crane from ground level to lift and move machinery, equipment and supplies, in industrial establishment: Attaches and detaches hooks, slings, tongs and other lifting devices to and from objects to be moved. Observes load hookup to ensure compliance with safety regulations. Lifts, moves and positions objects with crane, by walking alongside of load at ground level, and regulates speed, direction and hoist movement, using remote hand controls hanging from crane. Steadies load being moved manually. Cleans and lubricates moving parts of crane, using grease gun. Checks crane to detect defective parts and reports mechanical or electrical malfunction to supervisor.

GED: 2 SVP: 3 PA: L 3 4 7 EC: 1 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 4 5	1 3 9	2 3 Y

9311-166 WINCH OPERATOR (rail trans.; water trans.)

Operates steam or electric winch to hoist cargo in or out of ship's hold and move heavy objects such as railroad cars:

Examines cable, winch drum and brake to ensure they are in good working condition. Manipulates levers to raise, lower, turn, pull or position load or object according to instructions, or in response to hand signals from other workers. May attach cable hook to object to be moved. May lubricate machinery, using oil can. May be designated according to object moved.

GED: 2 SVP: 3 PA: M 4 7 EC: 1 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> <u>3</u> 5 <u>3</u> 4 <u>3</u> <u>3</u> 5	3 1 9	2 Y 3

9311-170 CRANE CHASER (any ind.)

Helps crane and power shovel operators engaged in lifting and moving machinery, equipment or materials such as, ore, structural steel, coal, molten metal, lumber and scrap metal, performing any combination of the following duties:

Moves and positions railroad cars for loading or unloading, using puller machine. Hooks or ties rope, cable, chain, sling, clamps or grappling equipment and attachments to object to be lifted or moved. Positions blocks, outriggers or jackscrews to secure crane and ensure

objects being moved are not damaged and to comply with safety regulations. Guides operator in lifting and moving loads when view of operator is obstructed, using voice or hand signals. Pushes or pulls loads as it is lowered, to position it in designated place. Lays tracks or timber runways for track mounted crane. Couples and uncouples railroad cars and throws track switches, manually. Checks chains, slings, ropes, cables, hooks and grappling equipment for damage or flaws, and reports defects to supervisor. Lubricates moving parts of crane or power shovel, using grease gun and oil can.

GED: 2 SVP: 3 PA: M 2 3 4 5 7 EC: O 5 6 DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 4 5	1 3	2 3 Y

9311-199 OTHER HOISTING OCCUPATIONS

This residual group includes hoisting occupations not presently classified in Unit Group 9311.

9313-LONGSHORE WORKERS, STEVEDORES AND FREIGHT HANDLERS

This unit group includes occupations concerned with loading and unloading ships, barges, trucks, rail cars, containers and other transportation conveyances. Activities include: operating and tending material handling equipment; assembling cargo in slings, piling goods on pallets to facilitate movement; and storing cargo in ships, rail cars and trucks.

9313-110 LONGSHORE WORKER (water trans.)

Operates material handling equipment such as, power winch, grain trimmer, crane and industrial truck, to transfer cargo into or from hold of ship and about dock area:

Operates crane or winch to load or unload cargo such as, automobiles, rolls of paper, crates, lumber, scrap metal and steel beams, using hook, magnet, or sling attached to load. Starts and stops flow of grain, from spouts of grain trimmer, and repositions spout over each hatch when previous ship's hold is filled, using hand control. Drives industrial truck along dock or aboard ship to transfer items such as, lumber, pallet mounted machinery, crated and containerized products, to within range of hoists. Drives tractor to transfer loaded trailers from warehouse to dock. Starts and stops conveyor to transfer cargo from warehouse to dock. May perform variety of duties such as, lashing and shoring cargo aboard ship; attaching slings, hooks or other lifting devices to winch or hoist, for loading or unloading, and signalling other workers to move, raise or lower cargo. May direct activities of dock workers in loading and unloading ships' cargo. May be designated according to equipment operated.

GED: 3 SVP: 5 PA: M 4 7 8 EC: O 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 5	1 9	2 Y

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9313-114 TOWER LOADER OPERATOR (water trans.)

Operates mechanical tower to load ships with materials such as, coal or ore:

Starts tower and manoeuvres it alongside of barge or ship. Positions conveyor over hatch and lowers telescopic chute and trimmer into ship's hold, using hand controls. Observes signals from ship's crew and starts conveyors to move material from storage into ship's hold. Observes and regulates flow of material on conveyor to prevent overloading or spillage, using hand controls. May observe control panel lights, meters, recording devices or closed circuit television to determine volume of material on conveyor, or detect malfunction of equipment. May correct malfunction by manipulating controls or notifies supervisor. May keep record of loading time.

GED: 2 SVP: 4 PA: L 4 7 EC: 1 5 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>3</u> 4 5 <u>3</u> 4 3 4 5	9 1 3	2 Y 3

9313-118 TANKER LOADER (water trans.)

Transfers liquid cargo such as, petroleum, gasoline, heating oil, sulfuric acid and alum liquors from and into barges and tanks: Reads timetable to determine name of ship, location of pier, and number and types of hoses to be connected. Selects correct hose according to product to be pumped. Positions coupling of pier hose next to valve of ship, using winch and boom and connects coupling to valve, using wrench. Connects ground wire between ship and shore to prevent explosion caused by static electricity generated when liquid cargo flows through hose. Opens valve to allow flow of cargo through hose, and signals worker aboard ship to start pumps to unload cargo. Prepares to transfer cargo into ship by signalling worker aboard ship to pump ballast from cargo tanks. Signals worker on shore to pump liquid cargo into ship. Tests dock hoses under air pressure to verify serviceability. Lubricates pumps and valves, and makes minor repairs to dock equipment. Assists in refuelling ships at dock side by connecting appropriate hoses to ships' fuel tanks. May operate automated facilities for loading and unloading liquid cargo in tankers, using computerized system. May be designated according to water vessel loaded or type of facility used.

GED: 2 SVP: 4 PA: M 2 3 4 EC: O 4 6 7 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 4 <u>3</u> 4 3 4 5	9 1	Y 2

9313-122 FURNITURE MOVER (motor trans.)

Moves furniture, office supplies and equipment to and from homes, apartments, offices and storage establishments:

Takes inventory of furniture and equipment being moved. Carries articles or loads them on dollies and pushes them to moving van. Arranges articles in van to form compact load, using padding and ropes to secure articles and prevent damage or breakage. Drives truck between locations of work. Removes ropes and padding from articles and unloads van at destination. Carries articles to specified location in

building. May specialize in containerized moving. May make minor repairs to furniture and equipment.

GED: 2 SVP: 3 PA: VH 2 3 4 8 EC: B 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>3</u> 4 4 <u>3</u> 4 3 3 5	1 3	2 3

9313-126 GRAIN RECEIVER (storage, n.e.c.)

Tends conveyor system and equipment to weigh, screen, store and transfer grain from boats, trucks and boxcars to storage elevators and bins:

Notifies other workers to begin unloading boat, truck or boxcar. Starts conveyors to transfer grain from unloading pit to scales, screens, storage elevator or bins, using hand controls. Sets batching scale at specified weight and starts conveyor that transfers grain to scale bin until desired weight is achieved. Pulls lever to empty scale bin and starts conveyor to transfer grain to designated area. Moves conveyor chute from full bin to empty bin as required. Records weight and condition of grain received, number of bins filled, amount of grain for each batch, and dates and verifies weight of grain against consignment sheet. Transfers grain from bottom of storage elevator, through conveyor system to top of elevator, to cool and treat it for bacteria or fungi growth. May be designated according to type of grain received.

GED: 2 SVP: 3 PA: L 2 4 7 EC: 1 5 7 DPT: 5 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 4 5 5	9 3 1	2 3 Y

9313-130 CAR DUMPER TENDER (motor trans.; rail trans.; storage, n.e.c.)

Tends equipment to dump materials such as, grain, coal, or ore from mine cars, railway cars or trucks into bins or onto conveyor for storage, reloading or further processing:

Activates clamp that secures car or truck in position on dumping platform, using hand controls. Receives audio or visual signals and manipulates controls of dumping machinery in sequence to tilt and jog car to release material. Returns boxcar to upright position and releases holding mechanism, using hand controls. May activate mechanical door breaker that pushes car door in, to regulate flow of grain from boxcar to receiving hopper.

GED: 2 SVP: 3 PA: L 4 6 7 EC: 1 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>3</u> 4 3 5 5	9 3 1	2 3 Y

9313-134 LOADER, LIQUIDS (any ind.)

Loads and unloads liquid products such as, chemicals, petroleum, edible oils, syrup and molasses into or from barges, tank cars, trucks or storage tanks:

Verifies tank car numbers with loading instructions to ensure accurate positioning of cars by crew. Connects wire to hose and ground to discharge static electricity and prevent explosion when unloading combustible liquids. Removes and replaces tank or vehicle dome caps,

using hand tools. Inspects interior of tanks for cleanliness and exterior for leaks or damage. Couples hose to tank inlet or outlet valves, or positions hose spout over dome and prepares for transfer of product. Turns valves to admit compressed air into tank car and force product into storage tanks, or uses suction pumps or gravity flow to transfer product. Disconnects hose and replaces plugs, using wrenches. Lowers gauge rod into tank, or reads meter to verify specified volume of product loaded. Tests sample for specific gravity, using hydrometer. Records reading on loading slip. Copies load specifications on placard and attaches placard to tank. Seals outlet valves on car, using sealer. May weigh truck before and after loading, and compute weight of liquid loaded. May be designated according to product loaded or unloaded.

GED: 2 SVP: 3 PA: M 2 3 4 EC: O 6 7 DPT: 5 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 3 4 <u>3</u> 4 5	3 1	2 3 Y

9313-138 BELT ATTENDANT (water trans.)

Tends conveyor, boom belt and bucket elevator to transfer materials to and from ships:

Opens and closes gate to release and regulate flow of materials such as, coal, gravel, gypsum or potash onto conveyor and other equipment used to load or unload ships. Starts and stops conveyor by turning power switch. Activates overhead sprinkling system to spray water on materials to reduce dust conditions. May grease and oil equipment, using grease gun and oil can. May clean work area, using broom and water hose.

GED: 2 SVP: 2 PA: L 3 4 7 EC: O 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 5 5 4 4 <u>4</u> 5 5	9 1	2 3

9313-142 DUMPER (motor trans.; rail trans.; water trans.)

Dumps materials such as, coal, ore, grain and chemicals into and from railway cars, ships, trucks or other vehicles, performing any combination of the following duties:

Positions and blocks vehicles by signalling vehicle or equipment operators, or by using winch and car jack, or powered tractor. Positions spout, chute and conveyor over or into car, truck, bin, ship's hold or storage pile. Opens slide in spout or chute to start flow of material into or from vehicles. Opens air valve of suction pipe, or operates powered scoop to transfer material from vehicle. Elevates front end of truck on hydraulic lift, with tail gate open, to dump material. Vibrates hopper car to facilitate flow of material, using electric or pneumatic vibrator. Starts conveyor and adjusts dampers, manually, to feed materials to specified bins. Opens car tank valves and starts pump to wash tank and transfer residue of materials to other tanks. Observes pressure gauges and adjusts valves to maintain pumping pressure. Signals winch operator to lower, lift or reposition

suction pipe. Records information such as, weight and volume of material loaded or unloaded and number of vehicles dumped or filled.

GED: 2 SVP: 2 PA: H 2 4 7 EC: B 5 6 7 DPT: 5 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 4 4 <u>4</u> 4 5	3 1 9	2 3

9313-199 OTHER LONGSHORE WORKERS, STEVEDORES AND FREIGHT HANDLERS

This residual group includes longshore workers, stevedores and freight handlers not presently classified in Unit Group 9313.

9315-MATERIAL HANDLING EQUIPMENT OPERATORS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with operating and tending material handling equipment, and moving and storing goods and material in sheds and warehouses.

9315-110 EXPRESS SORTING SYSTEM OPERATOR (rail trans.)

Operates control panel of automated express sorting and conveying system:

Controls and monitors remote closed-circuit television to view operation of system. Instructs tending personnel, by telephone, to reduce, increase or transfer traffic in any section ensuring smooth flow of system operation. Moves controls that start or stop specific sections to avoid congestion. Advises tending personnel of traffic requiring special handling to ensure such traffic is expedited. Investigates rule violations and accidents and recommends remedial action. May attend management meetings to give and receive recommendations to promote system efficiency.

GED: 4 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> 3 4 <u>4</u> 4 <u>4</u> 5 5	1 9	Y 9

9315-112 AUTOMATIC PALLET EQUIPMENT OPERATOR (any ind.)

Operates console that controls automatic equipment to sort, transfer and stack on pallets, containers of finished products such as, sugar, shoe parts, cigarettes or asbestos fibre:

Reads production and delivery schedules to determine sorting and transferring procedures, arrangements of packages on pallet and destination of items or loaded pallet. Observes packages or products moving along conveyor to identify packages and to detect defective packaging. Manipulates console controls to deflect rejected packages to predetermined accumulator or removes defective packages, manually. Turns selector switch on palletizer to control stacking arrangement of packages on pallet and to transfer loaded pallet to storage or delivery platform. Stops equipment to clear jams. Informs repairer of equipment malfunction. Records production and equipment

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performance data. Performs minor adjustments to equipment, using hand tools. May retrieve pallets that fall off conveyor and lift materials onto empty pallets to prevent obstruction.

GED: 3 SVP: 5 PA: M 3 4 7 EC: I 5 6 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 5	9 1	Y 9

9315-114 CONVEYOR OPERATOR (any ind.)

Controls conveyors or conveyor system to transfer materials from stockpiles or underground workings to processing or shipping points, move materials or products between departments or on production lines, or load and unload vehicles, performing any combination of the following duties:

Loads or directs other workers in loading of conveyor. Positions conveyor inlet, or adjusts chute, gate or pipe into bin or stockpile to feed material onto conveyor. Moves controls to start conveyor and regulate rate of movement and routing of materials. Adjusts automatic conveyor weigh scales or operates cutoffs and deflectors, to sort, or deposit specified kinds or amounts of materials at selected points. Observes conveyed materials for defects and monitors operation of conveyor to detect malfunctions. Clears stoppages, using pole, bar, or other hand tools. Removes materials from under conveyor to prevent jamming or damage. Inspects conveyor for wear and lubricates moving parts. Performs minor repairs, using hand tools. Records data such as, type and quantity of materials moved, operating times and condition of equipment. Sprays additives on materials passing on conveyor, or tends other equipment related to process such as, crusher, mixer, vibrator, or pollution control devices. Collects samples of materials for laboratory analysis. May be designated according to product moved, or according to type of equipment used.

GED: 3 SVP: 4 PA: M 2 4 7 EC: B 5 6 7 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>3</u> 4 4 <u>4</u> 4 <u>3</u> 4 5	1 3 9	Y 0

9315-118 BULK PLANT TENDER (feed & flour mill.; food & bev., n.e.c.; sugar)

Tends equipment to transfer bulk materials such as, sugar, salt, flour, rice and feed into or from railway cars, motor trucks, tanks, silos, storage bins or processing equipment:

Signals truck drivers or railway engineers to position trucks or railway cars for unloading, using hand signals. Positions conveyors, adjusts deflecting vanes and attaches unloading hoses and pipes to truck and railway cars, using hand tools. Opens conveyor gate or pipe valves, manually. Starts pumps, blowers and conveyors to transfer materials to or from vehicles and storage areas, using hand controls. May tend pumps and agitators to transfer and mix specified amounts of water, corn syrup or glucose and sugar in blending tanks. May pump mixture through filter to remove impurities. May record weight of materials

received and shipped, amount and type of syrup blended and percentage of waste materials. May weigh truck before and after loading.

GED: 3 SVP: 4 PA: L 2 4 EC: I 5 7 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 <u>4</u> 4 4 <u>4</u> 4 <u>3</u> 4 5	3 1 9	2 3 Y

9315-122 COAL EQUIPMENT OPERATOR (utilities, n.e.c.)

Operates bulldozers, front-end loaders and conveyors to transport and pile coal for use in boilers of electric generating plant:

Positions coal car over unloading bins, using bulldozer. Empties coal from car into bins, using powered car shaker. Starts and controls conveyor that transfers coals to and from bins, bunkers and storage pile, using hand controls. Operates bulldozer and front-end loaders to shape and compact coal storage pile to minimize possibility of spontaneous combustion. Lubricates and makes minor adjustments to conveyor systems, bulldozers and other coal moving equipment. May collect coal samples for laboratory tests. May tend crusher machine that reduces size of coal.

GED: 3 SVP: 4 PA: L 4 7 8 EC: O 5 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 5	1 9 3	2 3 Y

9315-126 INDUSTRIAL TRUCK OPERATOR (any ind.)

Operates powered industrial truck to push, pull, lift, stack, tier or move merchandise, equipment, or bulk materials, in warehouses, factories, storage yards, mills, shipping terminals, or other locations:

Drives truck to work site. Moves levers and pedals to control movements of lifting apparatus. Positions fork or lifting platform under boxes, pallets, shipping modules or bulk materials and transports load to designated area. Unloads and stacks material by raising or lowering lift to desired position. Cleans and lubricates vehicle and performs servicing checks of fuel, battery and coolant. May operate power truck having single prong to carry rolls of carpeting or other materials. May use truck equipped with vacuum cups to seize and lift objects having flat, smooth surfaces such as, large sheets of glass. May place railroad cars, motor truck trailers or aircraft in position for loading and unloading, using tow-bar or push-bumper attachment. May operate vehicle fitted with attachments such as, crane, scoop or snowplough. May be designated according to article moved, working area, process in which involved, or type of truck operated.

GED: 3 SVP: 4 PA: M 4 7 8 EC: B 5 7 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 3 4	1 3 9	2 3 Y

9315-130 TRACTOR OPERATOR (any ind.)

Drives gasoline, diesel or propane tractor to move materials, draw implements or machines, pull out objects embedded in ground, or pull cable of winch to raise, lower or load heavy material or equipment: Fastens attachments such as, graders, ploughs, rollers or pickup machines to tractor, using hitchpins. Starts, stops and controls speed

and motion of tractor, using hand and foot controls. Steers tractor with steering wheel or by moving levers and depressing brake pedals. Lubricates tractor and attachments and refuels tractor. May be designated according to type of attachment used.

GED: 3 SVP: 4 PA: M 2 4 7 8 EC: O 5 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 5	1 9 3	2 3 Y

9315-134 STRADDLE TRUCK OPERATOR (any ind.)

Drives and services four-wheeled vehicle that carries loads of materials beneath its elevated frame for short hauls within or near plant: Drives vehicle astride materials to be carried such as, lumber, bundled sheet metal, or skids. Moves levers to grasp load, raise and hold it a short distance above ground. Drives machines to specified delivery point, and moves levers to lower load to ground. Services and makes minor adjustments to vehicle. May be designated according to materials carried.

GED: 2 SVP: 4 PA: L 4 7 8 EC: B 5 6 DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 4 <u>3</u> 4 <u>3</u> 5	9 1 3	2 3 Y

9315-138 JACK LADDER TENDER (sawmill; veneer & plywood)

Tends chain conveyor and equipment that hauls logs up chute from yard or pond to saw or barker deck: Starts and stops chain conveyor system that hauls logs up chute to saw or barker deck, using hand controls. Pulls and aligns logs coming from chute, to guide them onto skid, using cant hook. Starts and stops cutoff saw to cut oversize or crooked logs to usable lengths. Records lengths and species of logs forwarded to mill for processing. May activate kicker arms that push logs from conveyor to deck, or attach clamps over logs and raise and pile logs near barking lathe, using power hoist. May remove knots or ends of branches from logs to prepare logs for processing, using hand saw or axe. May remove log blockages from conveyor, using winch or block and tackle equipment.

GED: 2 SVP: 4 PA: H 3 4 7 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>3</u> 4 <u>3</u> 5 5	3 1 9	2 3 Y

9315-142 BIN ATTENDANT (mining & quarrying; petrol. & coal prod.)

Tends conveyor system to convey coal, coke, sand and crushed ore to prescribed bins: Signals conveyor and shaker screen operators to start, stop or regulate speed of shaker and control flow of materials from bins to processing area, using electric signal system. Starts conveyors and pushes gate levers to route materials to prescribed bins from outside storage. Lubricates equipment, using oil can and grease gun. Cleans work area, using broom and shovel. May level material in bins, and record volume

and disposition of materials conveyed. May clear blockages of materials, using iron bar.

GED: 2 SVP: 3 PA: M 2 3 4 7 EC: I 5 6 7 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 4 5 5	3 1 9	2 3

9315-146 MALT HOUSE TENDER (distill., brew. & ferment.; food & bev., n.e.c.)

Tends equipment to transfer steeped or malted barley to or from germinating compartments, drying kilns or storage hoppers in malt house:

Presses switches or pulls levers to position overhead spout under chute, and to open chute to discharge and spread barley over floor of kiln or compartment or onto conveyor. Lifts and removes compartment door, manually or using powered winch. Transfers barley from compartment onto conveyor or kiln floor, using power scoop. Levels barley on floor for germinating or drying, using power scoop or spreader. May clean interior of compartments and floors, using hand scraper, shovel and high pressure water hose. May record number and time of each batch processed.

GED: 2 SVP: 3 PA: M 3 4 7 EC: I 4 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>3</u> 4 5 <u>3</u> 4 <u>3</u> 4 5	3 1 9	2 3

9315-150 TRANSFER TENDER (pulp & paper; sawmill)

Tends conveying equipment to distribute logs, wood blocks, timbers or lumber to saws, barkers, chippers, grinders and other wood processing machines:

Observes wood to determine species, size, grade or other specifications. Pushes buttons, moves levers, or presses pedals to start and stop conveyor belts, chains or rolls and activates kicker arms, jump rolls or cross chains to transfer wood from one conveyor to another, or from conveyor to platform or to appropriate machine. Clears blockages on conveyors, using pickaroon or peavey. May raise stop blocks to stop wood at specified points on conveyor. May remove unusable wood from conveyor with pickaroon or peavey. May saw or split oversize wood.

GED: 2 SVP: 3 PA: M 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>3</u> 4 <u>3</u> 4 4	3 1 9	2 3 Y

9315-154 WOOD CHIP UNLOADER (pulp & paper)

Unloads wood chips from railway cars or trucks, performing any combination of the following duties:

Drives rail mounted trackmobile to position railway cars on scale and ramp, above storage bin or conveyor, for unloading. Releases bottom or end doors, manually, or tilts boxcars to release wood chips, using hand controls to operate power tilting and dumping machine. Shunts empty railway cars to spur tracks, using trackmobile. Signals driver to position truck over bins for unloading wood chips, using hand signals.

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Attaches hoist cable and hook to loaded trailer. Starts power hoist and lifts trailer from tractor bed, using hand controls. Opens tail gate of trailer, allowing wood chips to fall into storage bin or onto conveyor. Lowers trailer onto tractor bed and closes tail gate. Attaches vibrator to side of railway car, or uses power digger machine to dislodge frozen or tightly packed wood chips. Takes samples of wood chips for laboratory analysis. Records gross and net weight of railway cars or trucks.

GED: 2 SVP: 3 PA: M 3 4 7 EC: O DPT: 5 6 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>3</u> 4 <u>3</u> 4 5	3 1 9	2 3 Y

9315-158 POLE DISTRIBUTOR OPERATOR (woodworking)

Drives gas powered machine, mounted on rails and equipped with chain loading and unloading mechanism, to move peeled poles from grading platform and distribute poles in storage area according to size: Turns crank to start distributor engine, moves shift lever to engage either machine or chain drives, and controls gas and brake pedals to position distributor at discharge end of grading platform. Loads peeled poles from platform onto distributor by pushing button to control transfer chains at end of platform. Aligns poles on distributor by manipulating shift lever. Drives distributor along tracks to transport poles at specified locations according to length. Rolls poles into position in storage area, using peavey. Refuels distributor, using gas can, and periodically lubricates equipment. Assists maintenance personnel in repairing distributor.

GED: 2 SVP: 3 PA: VH 4 7 8 EC: O DPT: 6 8 3

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>3</u> 4 <u>3</u> 3 5	3 1 9	2 3 Y

9315-162 CEMENT LOADER AND SACKER (asbestos & min. wool; cement, stone & clay)

Loads bulk cement into tank trucks or railway cars, and fills sacks with cement, performing any combination of the following duties: Positions and inserts loading nozzle in opening on tank truck, using electric controls. Starts pneumatic pumping system and turns valve or lever to open slide on storage bin. Observes weight indicator on scale and regulates speed of feed to fill tank in truck. Records weight on sales slip. Tends winch to position rail tank cars under loading nozzles. Inserts nozzles in loading ports of railway car, and starts pump equipped with preset measuring device that feeds in cement, using hand controls. Records weight of cement loaded in rail tank cars. Loads empty sacks in machine that automatically places sacks under spouts of loading mechanism. Pushes levers to fill sacks with specified amount of cement and tends sewing machine to close sacks. Piles filled sacks on pallets or hand trucks or allows sacks to drop onto conveyor. Weighs sacks to test weighing mechanism. May be designated according to vehicle loaded.

GED: 2 SVP: 2 PA: H 3 4 7 EC: I 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 3 5 5	3 1 9	2 3 Y

9315-166 CHIP SILO ATTENDANT (pulp & paper)

Tends equipment that conveys wood chips from chippers, scows or yard storage to digester bins: Starts conveyor belts and elevators to convey specified wood chips to designated bins or tanks, using hand controls. Regulates flow of wood chips to bins to prevent overloading of belt, using push-button controls. Sets trippers or slides to divert chips from belt into specified bins. Measures tanks to determine amount of chips in storage. May activate automatic belt cleaning device, or clean belts, manually, using shovel, broom and air hose.

GED: 2 SVP: 2 PA: L 4 EC: B 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>4</u> 4 4 5 5	3 1 9	2 3 Y

9315-170 CONVEYOR TENDER (explosives)

Tends conveyor system that transfers small arms cartridge cases and bullets from loading machines to inspection tables: Plans destination and sequence of conveyor deliveries, according to daily work orders and observations of each work station. Empties wheeled bins of work pieces into distribution hopper, using electric platform lift or by dumping tote boxes, manually. Starts and stops conveyor system that carries cartridge cases and bullets from loading machines to inspection tables, using hand controls.

GED: 2 SVP: 2 PA: L 3 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 5 <u>4</u> 4 3 5 5	3 9 1	2 3

9315-174 CONVEYOR TENDER (tobacco)

Tends conveyors that feed tobacco processing machines: Starts conveyors and turns switches or dials to set speed at which conveyors carry tobacco from one machine or area to another. Observes flow of tobacco on conveyors and stops conveyor when jamming occurs or hoppers are filled. Moves conveyors and equipment and makes minor adjustments to meet changes in production process. Inspects conveyors for defects such as, worn or frayed belts, defective bearings or worn rollers. Lubricates moving parts, using grease gun and oil can. May be designated according to type of process involved.

GED: 2 SVP: 2 PA: L 4 EC: I 5 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> 4 3 5 5	3 1 9	2 3

9315-178 GLASS CUTOFF MACHINE UNLOADER (glass)

Tends automatic vacuum crane that unloads sheets of glass from cutoff machine conveyor: Activates vacuum cups on crane that hold glass during unloading and stacking cycle and starts crane, using hand controls. Inspects glass for cracks, breaks or rough edges as glass passes on conveyor. Stops crane cycle to allow broken or defective glass to pass on conveyor into cullet (waste glass) chute for further cutting of defective glass. Records

quantity of glass stacked on tilt table. May assist other workers to lift glass from tilt table and pack glass in wooden crates by hand.

GED: 2 SVP: 2 PA: L 4 7 EC: 1 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 3 4 4 4 5 5	3 1 9	2 3

9315-182 STACKING MACHINE TENDER (any ind.)

Tends machine that stacks products such as, lumber, metal or plastic sheets on kiln cars, conveyors, pallets or other piling devices:

Adjusts guides on piles or stacking equipment according to size of product and desired arrangement. Positions empty pallet or container near stacking equipment and in reject bins, manually. Starts conveyor to transfer and stack product, using hand controls. Positions short wooden spacers across pile at intervals, to secure loads and provide ventilation. Stops conveyor when desired load and arrangement is obtained. Lowers load onto blocks for removal by machine carrier, or onto conveyor rollers, using hand controls. May release fastenings from load and place boards on conveyor for trimming, stacking, and unloading and be designated accordingly.

GED: 2 SVP: 2 PA: L 4 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 4 5	3 1 9	2 3

9315-186 MUNITIONS HANDLER (explosives)

Loads, unloads and stores ammunition and ammunition components in magazine (explosives storehouse):

Transfers explosive material between magazines and production areas in special containers such as, wooden blocks and leather pouches, by hand or using hand trucks or roller conveyors. Secures cargoes in transfer containers, using blocks and stays. Supplies production workers with specified explosives such as, charge caps and powder. Observes and adheres to posted safety regulations when handling and storing explosives.

GED: 2 SVP: 2 PA: M 3 4 EC: I 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 3 4 3 4 5	3 1	8 2 3

9315-299 OTHER MATERIAL HANDLING EQUIPMENT OPERATORS

This residual group includes material handling equipment operators not presently classified in Unit Group 9315.

9317-PACKAGING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, primarily concerned with such activities as assembling containers; covering articles or goods with protective

materials; cleaning, and closing packages; setting up, operating and tending a variety of machines that fill and seal containers, or wrap, bundle and bale products and materials; and preparing and packaging samples for display purposes. This designation covers packaging occupations wherever they occur except when packaging constitutes an integral part of processing such as, canning or freezing fruits, vegetables or fish. Occupations primarily concerned with labelling and stencilling packages, separate from the manufacturing process, are classified in Unit Group 8599, OTHER PRODUCT FABRICATING, ASSEMBLING AND REPAIRING OCCUPATIONS, N.E.C.

9317-110 FILLING MACHINE SETTER (food & bev., n.e.c.)

Sets up filling and scaling machines to pack potato chips in bags: Selects spouts according to size of bags being filled and attaches spouts to conveyor of filling machine, using hand tools. Adjusts height of conveyor that moves filled bags from spouts of conveyor machine. Sets filling machine scales according to weight specified for filled bags. Starts heating unit of sealing machine and sets date on stamping unit of sealing machine, manually. Fills inkwell of stamping unit and regulates flow of ink onto stamp pad. Installs new rolls of bag materials, using hand tools.

GED: 3 SVP: 5 PA: L 3 4 EC: I 5 DPT: 3 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 3 3 4 4 3 3 3 4 5	9 1	Y 0

9317-114 PACKING MACHINE SETUP OPERATOR (explosives)

Sets up and operates battery of machines to pack small arms ammunition in cardboard containers for storage or shipment: Installs guides, pusher bars, positioning arms and slides to set up machines according to specified size of container, using hand tools. Adjusts stops and cams to specified settings on calibrated scales, using hand tools. Positions microswitch and electric eye counting and inspection devices to obtain accurate readings, using fixed spacing gauges. Changes type in box marking stamp and replaces worn rubber cups on vacuum operated box lifters. Starts, stops and observes machines in operation to detect malfunctioning and makes adjustments, using hand tools. Examines finished packages for defects such as, dents, tears, excess glue, oil stains or inadequate closing, and rejects defective packages. Clears blockage by removing spilled cartridges, using hand tools. Records date, number and type of ammunition packed and number rejected.

GED: 3 SVP: 5 PA: M 3 4 7 EC: I 5 6 DPT: 3 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 3 3 5 5	9 1	Y 0

9317-116 PACKAGING MACHINE ADJUSTER (any ind.)

Sets up and adjusts group of machines in packaging department, to perform one or more functions such as, cleaning, washing, carton forming, filling, marking, labelling, sorting, weighing, inspecting, packing, wrapping, or closing containers, using hand tools and

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following written or oral instructions:

Changes parts such as, label applicator plates, gear wheels and mandrels, according to shape and size of product. Adjusts mechanisms such as, feed hoppers, applicator rolls, cutting blades, conveyor guides, gumming roller, folder and pressure rollers, and timing gear, using hand tools. Lubricates machines and conveyors attached to machine. Starts and observes machine to detect malfunctions and makes minor adjustments or repairs. Calls maintenance staff to carry out major repairs to machine. Verifies conformance of packaged product with packaging specifications. May instruct tender in use of machine.

GED: 3 SVP: 5 PA: L 4 7 EC: I 5 6 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 3 3 5 5	9 1	0 Y

9317-118 PRESSURIZED CONTAINER FILLER (chem., n.e.c.; petrol. & coal prod.)

Tends equipment to fill containers such as, portable cylinders or tank cars and trucks, with liquefied or compressed gases such as, propane, oxygen or hydrogen:

Changes cylinder filling valves, using wrench, or adjusts them to required tension, using torque wrench. Connects flexible lines from charging manifold to cylinders, using hand tools. Fills containers by one of the following methods: sets pressure gauge and listens for buzzer indicating that container is filled; adjusts valves and observes gauge to fill containers to specified pressure; or adjusts valves and observes scale indicator to fill containers to specified weight. Sprays or brushes solution onto container valves to detect leaks. Attaches labels or decals to cylinders or containers detailing container number and weight, type of gas, date of filling and precautionary warnings. Tests gas for purity, using burette and absorption testing equipment. May inspect and purge empty containers. May test filled cylinders for specified gas pressure and temperature, using charts and gauges.

GED: 3 SVP: 4 PA: M 2 3 4 6 EC: B 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 4	3 1 9	2 0 Y

9317-122 CIGARETTE PACKING MACHINE TENDER (tobacco)

Tends fully automated machine that folds and lines pre-cut sliding shell package, fills, stamps, dates and cellophane wraps package, and packs filled packages into bundles:

Piles package shells and slides, excise tax stamps and labels into appropriate stacker of machine. Fills receptacles with glue, solvent and ink. Places spools of foil, cellophane and tear strip on feed spindles and threads ends through rollers and guides. Pulls lever to lock cigarette tray into feed position and pulls bar to release cigarettes into machine hopper. Verifies that shells, labels, excise tax stamps and code dating coincide with brand of cigarettes. Starts and stops machine, as required, to clear jammings and blockages. Removes empty trays from machine and places them on hooks. Observes filled packages for defects in folding, wrapping or labelling. Opens defective packages and deposits waste in separate containers. Cleans machine with brush, and makes minor adjustments to guides and rollers by turning thumbscrews or using screwdriver and pliers. May tend machine that performs only part of duties described such as, one which only folds

and fills package, or one which wraps number of filled packages in cellophane or foil (over wrapper). May tend machine that requires feeding by hand, and be assisted by other worker who performs feeding duties.

GED: 2 SVP: 4 PA: L 3 4 7 EC: I 5 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 5	3 1 9	2 0 Y

9317-126 CRATER (any ind.)

Fabricates wooden crates or boxes, using hand and power tools, and packs therein articles such as machinery, stone, refrigeration equipment, signs or other large or odd shaped objects to enclose and protect products from damage during shipment:

Reads shipping notices and other specifications, and inspects products to determine size and shape of containers required and materials to be used. Lays out dimensions on materials, using measuring tape or ruler and pencil. Cuts materials to size, using hand and power saws. Assembles containers, using nailer or stapler, screws, bolts, glue and hand tools. Positions product in container, manually or with hoist. Bolts or wires heavy pieces to bottom of container or skid. Wraps, covers, pads and packs products with protective material to prevent damage during shipment. Builds crates around large or odd shaped products. Nails covers on crates, using hammer or nailer. Wraps and tightens metal band around container, using banding equipment. Attaches identification tags, labels or stencils containing data such as, destination, weight and type of product. Repairs broken crates. May count items to be packed to ensure compliance with shipping orders. May weigh loaded crate. May transfer containers and crating materials to crating and shipping areas, using hand or industrial truck. May be designated according to item crated.

GED: 2 SVP: 3 PA: M 3 4 EC: I 5 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 3 3 4 5	3 1 9	0 Y

9317-130 CARTON PACKAGING MACHINE TENDER (any ind.)

Tends machine that packs packaged products into cartons: Adjusts carton holding guides on machine to accommodate cartons of various sizes, using hand tools. Observes packages on feed conveyor to detect defects such as, incorrect folds or seams, tears or dents and off-centred tax stamps or labels. Removes defective packages. Notifies packing machine operators of defects. Starts packaging machine, observes flow of cartons into and out of machine, and notifies machine adjuster of malfunction. May tend machine that forms and seals cartons. May be designated according to product packed.

GED: 2 SVP: 3 PA: L 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 3 5 3 4 4 5 5	3 1 9	2 3 Y

9317-134 PACKER, INSULATION (asbestos & min. wool)

Tends machine that compresses fibre glass or mineral wool insulation into bags or bales, performing any combination of the following duties: Examines materials to be packed and rejects defective material. Stacks specified quantity of material on conveyor leading to packing machine. Starts machine and adjusts compressing mechanism, according to amount of loose insulation to be forced into bag or number of batts used for each bale, using hand controls. Opens and slides bag or paper sleeves over form or holding tube for filling with material. Activates discharge mechanism to force material into bag or sleeve. Positions baling straps and cardboard sheets to form bale ends and separators on each slug (compressed unit) as it drops into baling box. Staples, tapes, stitches or ties packages to seal them according to specifications, by hand or using strapping, stapling or stitching machines. Attaches identification data and keeps records of weight, number of bales or bags packed and date. Lifts bale from baling box to conveyor or truck. Labels or stencils packages.

GED: 2 SVP: 3 PA: M 4 EC: I 5 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 3 4 3 4 3 4 5	3 1 9	2 3 Y

9317-138 REWINDING MACHINE TENDER (wire prod.)

Tends machine that lubricates, straightens and rewinds wire into tight rolls for shipment:

Checks work order to ascertain material to be rewound. Obtains coil of material to be wound, from rack, and positions it on play out reel manually or with power hoist. Threads free end of wire through machine and attaches it to winding mechanism. Sets automatic weighing device that stops machine when coil reaches required weight. Cuts wire, removes face plate from rewind spindle, secures coil with hands and deposits coil on work stand after machine has stopped. May secure rewound rolls of wire with metal bands, using hand tools. May place rewound rolls on pallets. May splice wire, using butt welder. May wrap coil in waxed paper and seal coil in carton. May attach pre-coiled wire on hook of crane that lifts and lowers coil into oil vat for lubrication. May wrap and pack wire for shipment, according to oral or written instructions.

GED: 2 SVP: 3 PA: M 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 3 5 4 4 3 5 5	3 1 9	2 3 Y

9317-142 AMPOULE FILLER (pharm. & toil.)

Tends machine that fills and seals ampoules with metered quantity of liquid drug product such as, serums and vaccines:

Swabs machine connections with disinfectant solution to ensure sterility and attaches feed line from pressure tanks to filling machine. Opens valve to permit flow of liquid through feed line and starts machine, pressing button. Places empty ampoules or vials on rotating table or conveyor of machine that automatically positions them for filling and sealing. Observes operation of machine, turns knobs and presses switches to vary flow of vaccine, speed of rotating table or

conveyor and quantity of fill. Regulates gas flame in ampoule filling and sealing machine. Collects samples for quality control. May tend machine that steam washes ampoules and vials preparatory to filling.

GED: 2 SVP: 3 PA: L 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 5 4	3 1 9	2 3 Y

9317-146 BARREL FILLER (distill., brew. & ferment.)

Tends equipment to fill metal or wooden barrels with alcoholic beverages, by either of the following methods:

Lifts barrel onto conveyor leading to racker (counter pressure filling machine). Lowers filling arm of racker and fits nozzle into bunghole. Turns valve to pressurize barrel and start flow of beverage. Turns valve that releases filling arm when sight glass indicates barrel is full and raises arm. Starts compressors, opens valve and observes gauges to ensure proper flow of beverage into feed lines. Rolls barrel with bunghole side up under filling head or storage tank. Inserts nozzle into bunghole and opens valve to fill barrel with specified beverage. Removes nozzle from filled barrel when flow has stopped automatically. Hammers or screws bung into barrel. Pushes filled containers onto conveyor leading to storing area. May fill barrel with other alcoholic or nonalcoholic liquids. May stencil or stamp identifying information on barrelheads, using paint brush, spray gun, or hand stamping machine.

GED: 2 SVP: 3 PA: H 3 4 EC: I 4 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 3 4 3 4 5	3 1 9	2 3 Y

9317-150 PLYWOOD BUNDLER (veneer & plywood)

Bundles, straps, or wraps plywood panels, by any of the following methods:

Ensures uniform size and grade of panels to be bundled, by verifying their markings. Fills machine holders, reservoir and hoppers with tape, glue, clips, staples and labels. Threads gummed tape through slots and rollers, or loads machine with wire strapping, corner protectors, crimping blanks and blocks. Sets automatic controls on console for number of panels to be bundled and adjusts pusher arm according to panel thickness. Starts hydraulic pump, the kraft tape applicator, the tape cutter and the main drive motor that pushes panels to automatic stacker and bundling device. Depresses buttons to move number of plywood panel stacks on powered feed rollers and to place one stack under baling mechanism which bales stack with wire strapping. Depresses switch or pedal to activate conveyor that feeds plywood panels to machine. Pushes stack of panels onto bed of machine that clamps panels together. Straps bundle together, using wire strapping device. Clears blockages as they occur. Records daily production of bundles and identifies each bundle with label or by marking it, using hand roller, ink pad, stencils, brush or spray gun. May verify quality of plywood panels to be baled, and repair minor defects such as, plugging holes with plastic wood, using putty knife. May make minor repairs and adjustments to bundling machine such as, varying feed pressure of

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plywood bundle or tape rollers, draining air lines, and removing and washing metal tracks.

GED: 2 SVP: 3 PA: M 3 4 EC: 1 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> 3 4 <u>3</u> 4 5	3 1 9	2 Y

9317-154 LOCKER PLANT ATTENDANT (ret. trade)

Performs any combination of the following duties in frozen food locker establishment:

Wraps food in protective paper or plastic film and ties package with adhesive tape, manually or using machine. Stamps identifying label and weight on package. Packs wrapped package in containers and places containers in freezing compartment. Transfers frozen packages to designated storage lockers. Records items packed, weight and locker compartment numbers and forwards information to business office. Fills orders from customers' lockers following written requests, and retail orders from general stock. May grind and slice meat, by machine.

GED: 2 SVP: 2 PA: M 4 EC: 1 2 DPT: 5 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> 4 <u>3</u> 3 3 4 5	3 1 9	2 3

9317-158 FURNITURE PACKER (trans., n.e.c.)

Packs furniture and household goods in crates or cartons lined with protective material to secure goods and prevent damage during transit. Assembles cardboard cartons and seals one end, using adhesive tape. Cuts corrugated paper or cardboard pads, using knife, and inserts them inside crate or carton, or spreads wrapping paper, excelsior or cloth pads around furniture in crates to prevent damage during shipment. Wraps small breakable items in protective paper before packing into cartons. Assists other workers to pack and secure furniture and other items in crates or cartons. Seals cartons or crates, using tape or hammer and nails. Stencils or tags cartons with identification such as, code number, using stencils and ink pad. Records condition of all furniture packed, number of cartons, date and destination on inventory list. Transfers packed crates and cartons to loading area by hand or using hand truck. May specialize in making and installing protective lining in crates or cartons and be designated accordingly.

GED: 2 SVP: 2 PA: M 3 4 EC: 1 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>3</u> 4 <u>3</u> 3 3 4 5	3 1 9	2 3 Y

9317-162 SNUFF PACKING MACHINE TENDER (tobacco)

Tends machine that fills cans with snuff and seals lids on cans. Loads packing machine magazines with excise tax stamps, identification labels, lids and glue. Starts machine, and observes operation of machine to determine whether cans are filled, sealed and labelled according to specifications. Removes random sample of filled cans of

snuff from conveyor for weight testing by supervisor. Turns hand-wheel to adjust feed rate of snuff to tins when supervisor verbally advises that weights deviate from standard. Reports malfunction of machine to supervisor.

GED: 2 SVP: 2 PA: M 3 4 5 6 EC: 1 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> <u>5</u> <u>4</u> 4 4 5 5	3 1 9	2 3 Y

9317-166 STARCH PRESS TENDER (soap)

Presses and packs starch and residual material into drums for shipping:

Moves levers to discharge starch material from chute into drums and to actuate hydraulic ram that presses starch into drums to form soap stock cake. Positions lids and seals drums. Rolls drums to scale for weighing, and stencils weights on drums. Records production data and batch control numbers.

GED: 2 SVP: 2 PA: H 3 4 EC: 1 5 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 3 5 5	3 1 9	2 3 Y

9317-170 CIGAR WRAPPING MACHINE TENDER (tobacco)

Tends machine that wraps trademark band and cellophane wrapper around cigars:

Dumps cigars from trays into feed hopper and loads trademark band into magazine of machine. Positions roll of cellophane on spindle, and threads cellophane through guides and tension rollers into machine. Fills water reservoir, using funnel. Presses button to start heating unit that seals cellophane wrapper. Starts machine and turns thumbscrews to set guides and to regulate tension of cellophane feeding into machine. Observes operation to detect defects in banding or wrapping and makes necessary machine adjustments. Packs specified number of wrapped cigars in boxes. May tend machine that stamps trade name on cellophane wrapped cigars. May feed each cigar individually into banding machine manually, preparatory to packing single cigars in aluminum tubes and be designated accordingly.

GED: 2 SVP: 2 PA: L 4 7 EC: 1 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> <u>3</u> 4 <u>4</u> 3 4 5 5	3 1 9	2 Y 3

9317-174 TOBACCO PACKING MACHINE TENDER (tobacco)

Tends machine that forms packages from foil backed waxed paper, fills packages with tobacco and wraps and seals them in cellophane. Mounts rolls of foil backed waxed paper and cellophane on machine spindles, and threads ends through rollers into folding mechanism. Fills receptacle with glue. Turns dial, wheel or screw to set automatic weighing mechanism which feeds specified quantity of tobacco into each package. Starts machine by depressing button, and observes machine and finished product to detect defects such as, torn wrapping

and defective sealing. Removes defective packages and empties waste tobacco into separate container. Adjusts device that wraps cellophane around packages, using hand tools. May spot check packages to verify accuracy of weighing mechanism. May tend fully automated tobacco packing machine which also affixes excise tax stamps, dates package, and bundles number of packages in one carton.

GED: 2 SVP: 2 PA: L 4 7 EC: I 5 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 4 <u>4</u> 5 5	3 1 9	2 3 Y

9317-178 TYING MACHINE TENDER (any ind.)

Tends machine that wraps, bands and ties bundles of products such as, metal coils, lumber, cardboard and wooden boxes, with string, twine, metal bands or wire:

Positions roll of binding material on machine spindle and threads it through guides of machine wrapping arm to knotter, or crimper and cutter. Stacks products to be wrapped in tiers and places tiers on machine table, or places products on table and clamps bundle in place to facilitate tying. Starts machine and depresses pedal that actuates machine to wrap and tie binding material around products, and cut it free from roll. Stacks bundled products on hand truck, pallet or conveyor. May use manual strapping machine to wrap products. May wrap protective covering such as, paper or fabric, over products before banding, to prevent damage from binding material or damage during shipping.

GED: 2 SVP: 2 PA: H 3 4 EC: I 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 5 4 <u>4</u> 5 <u>3</u> 4 <u>3</u> <u>4</u> 5	3 1 9	2 3 Y

9317-182 BALING MACHINE TENDER (any ind.)

Tends machine to compress and bind loose materials to facilitate handling:

Loads materials in compression chamber of baling machine, manually, or uses automatic feeding device. Moves lever or electric switch, causing ram to compress material. Threads and tightens tie bands around bale and secures ends by twisting or clamping. Presses switch or moves handle to open compressor door, or eject strapped bale from top of chamber. May sew lapped edges of burlap that protects bales of cloth during shipment. May move bales to storage area, using hand or powered industrial truck. May weigh and record quantity and type of materials baled, and stencil or tag bales. May line compression chamber of baling machine with paper, burlap, or other covering to protect material in bale, or sew or tie wrapping in place after baling. May be designated according to material baled.

GED: 2 SVP: 2 PA: H 4 EC: I 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> <u>4</u> 3 5 5	3 1 9	2 3

9317-186 BEER CARTON PACKER (distill., brew. & ferment.)

Tends machines and equipment that packs beer containers into cartons, working as member of team performing any combination of the following duties:

Stacks and positions bundles of six-pack cartons in rack of case packer machine. Starts machine that automatically opens and loads six-pack cartons with cans or bottles of beer, closes and moves carton onto conveyor for transfer to packaging machine, using hand controls. Clears jams when machine automatically stops and restarts machine, using hand controls. Opens flattened twenty-four bottle carton, seals bottom of carton and places carton on conveyor of packaging machine. Starts, stops and observes packaging machine that fills cartons with four six-pack cases, and drops filled cartons onto conveyor for transfer to sealing machine. Starts, stops and observes gluing and sealing machine that automatically receives, glues and seals cartons. Tends semiautomatic palletizing machine that stacks and positions cartons in prescribed pattern on pallet. May stack filled cartons on pallets, manually.

GED: 2 SVP: 2 PA: M 3 4 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> <u>5</u> <u>3</u> 4 <u>3</u> 5 5	3 1 9	2 3 Y

9317-190 BOTTLE PACKER (distill., brew. & ferment.; food & bev., n.e.c.)

Tends machine that inserts filled bottles of liquid such as, beer, vegetable oils and soft drinks into cardboard cartons, performing any combination of the following duties:

Carries pre-cut flat cartons from storage to work area. Assembles cartons, inserts dividers and seals bottom of cartons, using adhesive tape. Places empty cartons on platform below automatic packer machine, manually. Raises platform to packer level for depositing bottles into carton, using pedal controls. Starts and stops packer machine, using hand controls. Observes operation to detect and remove defective bottles and cartons, and detect malfunctions. Straightens and resets dividers in cartons. Releases pedal control to lower platform, and pushes full carton onto conveyor. May tend machine that automatically raises platform, deposits bottles in cartons and transfers filled cartons to conveyor.

GED: 2 SVP: 2 PA: M 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 5 5 <u>4</u> 5 <u>4</u> <u>4</u> 3 4 5	3 1 9	2 3 Y

9317-194 CANDLE WRAPPING MACHINE TENDER (misc. prod. fab., n.e.c.)

Tends machine that wraps candles with decorative paper or foil:

Installs roll of paper or foil in machine, threading end of roll through machine guides. Moves controls to set suction pickup mechanism for specified vacuum, to produce uniformly wrapped product without damage to wrapper. Places pair of candles in box and places box on wrapping machine conveyor belt. Piles wrapped boxes on table. May

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tend machines that separate candles by cutting joining wicks, and wrap candles in cellophane.

GED: 2 SVP: 2 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 3 4 4 5 4	3 1 9	2 3 Y

9317-198 CARDER (misc. prod. fab., n.e.c.)

Tends machines that staple or stitch articles such as, buttons, hooks and eyes, buckles and snap fasteners, onto cards for sales presentation: Mounts cones of thread or reels of wire onto spindles of stitching or stapling machine, and threads ends of thread or wire through guides. Stacks cards in gravity feed hoppers of machines. Starts and stops machine, using hand controls. Observes operation of machine, as articles drop down feeder tubes and are stitched or stapled onto moving cards, to detect malfunction. Cuts stitching between cards to separate them, using scissors. Stacks filled cards. Staples buttons and buckles on cards, using pedal activated bench stapler.

GED: 2 SVP: 2 PA: L 4 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 5 5 3 5 4 4 4 4 5	3 1 9	2 3 Y

9317-202 COTTON ROLL MACHINE TENDER (textile)

Tends machine that rolls absorbent surgical cotton rolls for packaging: Places empty shipping cartons on conveyor rollers, manually. Starts automatic cotton roll machine that rolls absorbent cotton between paper and cuts roll to specified length. Inserts rolled lengths of cotton in cardboard containers. Weighs cotton rolls at various intervals, using scales, to determine if specified weight is being rolled by machine. Replaces feed rolls of cotton and paper, manually. May record number, size and type of rolls produced and quantity of material used. May fill shipping cartons with filled containers and seal cartons.

GED: 2 SVP: 2 PA: L 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 4 5 4 5 4 4 3 5 5	3 1 9	2 3 Y

9317-206 HOGSHEAD FILLER AND PACKER (tobacco)

Tends hydraulic press that packs tobacco into hogshead for shipment or storage:

Positions empty hogshead under loading chute, manually, and lowers chute onto hogshead. Starts flow of tobacco into hogshead and stops flow, using hand control, when specified level is attained. Pushes partly filled hogshead, mounted on wheels, under ram of hydraulic press. Pushes button to lower ram of press into hogshead to press tobacco. Repeats filling and pressing of hogshead until specified weight of tobacco in hogshead is attained. Pushes filled hogshead to storage or loading area. May place metal band around hogshead to prevent staves

from bursting under pressure. May signal other workers to divert flow of tobacco into another hogshead, using voice or hand signals.

GED: 2 SVP: 2 PA: VH 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 4 5 4 5 4 4 4 4 5	3 1 9	2 3 Y

9317-210 KEG WASHER (distill., brew. & ferment.)

Tends washing machine that cleans interior and exterior of aluminum beer kegs prior to filling: Depresses pedal to lower head of drilling machine to remove plastic or wood cork from bunghole of keg. Lifts keg, manually, onto conveyor for transfer to washing machine. Pushes buttons to start washing machine, observes gauges and thermometers, and turns valve to maintain temperatures at specified operating levels. May insert light into barrel and inspect interior surfaces for dirt.

GED: 2 SVP: 2 PA: M 3 4 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 4 4 5	3 1 9	2 3

9317-214 PACKAGER, BAKERY PRODUCTS (bake. prod.)

Tends machine that fills, wraps, seals and labels boxes of bakery products such as, pies, doughnuts, buns or pastry: Mounts rolls of wrapping paper and labels on machine spindles, threads free-end of rolls through pressure rollers, and attaches to wrapping and labelling mechanisms of machine. Turns handles, wing nuts or screws to regulate distance between machine guides, according to size of boxes to be wrapped. Inserts stamp in machine to print information such as, date on labels, and fills ink reservoir. Adjusts thermostat to heat label applying and sealing device. Stacks flattened boxes in machine tray and starts suction device of box forming mechanism. Starts machine and conveyor that carries bakery products into packing machine and observes operation to detect malfunctions. Inspects wrapped boxes for defects such as, breakages, torn wrapping and misplaced labels, and adjusts machine accordingly. Records number and types of products packed. May tend machine that automatically slices and wraps or bags bread. May insert bakery products into containers, manually, or place bakery products into trays or hopper of machine. May weigh wrapped packages to ensure conformance with specifications.

GED: 2 SVP: 2 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 4 4 5 5	3 1 9	2 3 Y

9317-218 PACKAGER, MACHINE (any ind.)

Tends machine that performs one or more packaging functions such as, cleaning, bundling, filling, marking, labelling, sorting, tying, sealing, packing, weighing, wrapping, or closing containers to pack any of a variety of products:

Starts machine and observes operation to detect malfunctions of machine and off bearing mechanisms. Makes adjustments such as,

opening valves, changing cutting dies and setting guides. Cleans away damaged products or containers. Inspects filled containers to ensure that product is packaged according to specifications. Feeds product to conveyors, hoppers or other feeding devices, or positions and holds container in machine and presses pedal or button to fill, label, sew, seal or staple containers, and unloads packaged products. Replenishes supplies such as, wrapping paper, plastic sheets, boxes, thread, cellophane rolls, cartons, bottles, glue, ink or labels, mounting supplies on spindles or placing them in hopper or other feeding devices. Stencils information on container. Tallies quantity packaged or records other information such as, size, weight and type of product packaged. Keeps work area clean. May tend particular type of machine and be designated accordingly.

GED: 2 SVP: 2 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 4 <u>3</u> 4 <u>3</u> 4 4	3 1 9	2 3 Y

9317-222 PACKER, LIQUID (dairy; food & bev., n.e.c.)

Tends machine that fills containers with products such as, milk, cream, juices and molasses:

Sterilizes machinery by spraying liquid chlorine into machine fittings and conveyor system, using spray container and air hose. Loads machine, manually, with empty cartons, paper packaging, tape roll, cups, bottles, lids or caps, as required. Depresses button to start machine that fills and caps container and observes operation to detect blockages and malfunctions. Stops and unblocks machine, and removes damaged containers. Reports defects to maintenance department. Records products and quantity of containers packed. Dismantles machine, using wrenches, and cleans machine parts such as, spouts, hoses and fittings. May manually pack filled containers into cartons or boxes. May connect plastic hoses between supply tank and filling mechanism, using wrench. May date stamp product with hand stamp. May be designated according to type of product packed or type of container filled.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> 4 <u>3</u> 4 <u>3</u> 5 5	3 1 9	2 3 Y

9317-226 PLASTIC PACK MACHINE TENDER (misc. prod. fab., n.e.c.)

Tends machine that seals products such as, hardware, vehicle parts, clothing, novelties and miscellaneous accessories in plastic or plastic bubble cards for sale or display:

Selects articles and display or backing cards, according to specifications. Places preformed plastic shell in depression on machine table, positions article to be packed in plastic shell, and aligns display or backing card on top of article and shell. Starts machine that automatically rotates table, and places plastic shell and card under heated

sealing plate. Adjusts knob to regulate heat and pressure of sealing device. Removes sealed products from machine.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 5 4	3 1 9	2 3 Y

9317-230 SACK FILLER (any ind.)

Tends machines that fill sacks with preweighted material such as, feed, salt, and soap powder, and sews tops of bags:

Shakes bag open, places and clamps it under chute of feed hopper, and presses pedal which releases preweighted batch into sack. Moves filled sack on conveyor to bag closing machine. Folds end of sack, places identification tag in position for sewing, and clamps sewing unit in place. Starts sewing device which automatically closes and sews top of bag. May press lever of imprinting device to record identification data on bag. May tally number of bags filled or record other information such as, batch or mix number processed. May weigh filled sacks, using platform scales. May check levels of silo bins of hopper. May be designated according to material packed.

GED: 2 SVP: 2 PA: VH 4 EC: I 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 <u>3</u> 4 5	3 1 9	2 3

9317-234 SPOOL WINDER (metal fab., n.e.c.)

Tends machine that winds solder wire onto spools:

Positions empty spool on machine spindle and secures end of wire to spool. Starts machine by depressing foot pedal and manually guides wire so that it winds evenly along revolving spool. Shuts off machine when required length of solder is wound on reel. Weighs filled spool on scale, and adds or removes wire to attain specified weight. Cuts wire with wire snippers and hooks ends of wire on rim of spool. Verifies size and type of wire with label on ends of spool. May tend machine equipped with automatic winding and guiding mechanism.

GED: 2 SVP: 2 PA: M 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 <u>4</u> 4 <u>3</u> 4 5	3 1 9	2 3 Y

9317-238 BLUEPRINT TRIMMER (bus. serv.)

Prepares blueprints for establishment use or for shipment, performing any combination of the following duties:

Cuts individual print from continuous strip of processed prints, using shears. Examines prints for clarity or double image. Verifies dimensions of print margins and cuts off excess paper, using ruler and shears. Punches holes in print, using paper punch. Folds print and staples specified number of prints to folded edges of wrapping paper to form bound set. Rolls prints and inserts them in tube container for

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shipment. Writes or attaches customer's name and address on wrapper or shipping container. May sort prints according to numerical code.

GED: 2 SVP: 2 PA: L 4 7 EC: I 7 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 5 <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 5	3 1 9	2 3 Y

9317-242 SNUFF CAN INSPECTOR (tobacco)

Examines cans of snuff to determine if weight and labelling conform to company standards:

Weighs random cans to detect variations in weight, using graduated scale. Examines cans for defects such as, loose sealing, and misprinted or misplaced labels and excise stamps. Places defective cans in boxes and informs packing workers on measures to correct sealing or packing defects.

GED: 2 SVP: 2 PA: L 4 7 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 4 5 4	3 1 9	2 3 0 Y

9317-246 FILM SPOOLER (scient. & ind. equip., n.e.c.)

Wraps unexposed film onto spools in darkroom of photographic film plant:

Places empty spool onto takeup spindle of winding device. Attaches end of film strip from bulk supply reel to empty spool or bobbin, using adhesive tape. Presses button to start winding device and allow specified length of unexposed film onto spool. Stops rotation of takeup reel when notch in film, indicating required length, is felt passing between fingers. Cuts film, using shears. Presses gummed sticker over cut end of film on spool, or fits spool into cassettes and presses lighttight caps over ends of cassette, using press. May pass fingers over sheets of x-ray film spread on table to locate defects.

GED: 2 SVP: 2 PA: L 4 EC: I 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 4 <u>4</u> 4 5 5	3 1 9	2 3

9317-250 LABEL CODER (distill., brew. & ferment.)

Cuts notches in beer labels to indicate date of product, following predetermined code:

Turns set screws to space and lock blades of notching device, according to coding guide, using ruler. Clamps stack of labels on bed of notching device, and pushes bed forward to force labels against blades that cut notches. Pulls lever of cutter to notch labels. Prepares label coding report, and orders labels according to brand of beer and size of label required. Maintains inventory of labels on hand. Distributes coded

labels to bottling department, using hand truck. Inserts or removes printing symbols from carton coding wheels, using tweezers.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>3</u> 4 <u>4</u> 4 <u>3</u> 4 4	3 1 9	2 3 Y

9317-254 NUT AND BOLT ASSEMBLER (metal fab., n.e.c.)

Couples and packages nuts, bolts and small hardware products:

Starts turning nut on bolt by hand then positions it in chuck of nut turning device that spins nut on bolt. Weighs or counts specified amounts of nuts and bolts, and records quantity on production form. Packs nuts and bolts in cardboard carton and pushes carton along bench or onto conveyor. May assemble small items of pole line hardware by clipping or bolting items together. May tie long bolts into bundles with wire, using hand tools, and place bundle onto rack.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> <u>3</u> 4 <u>3</u> <u>3</u> 5 5	3 1	2 3 Y

9317-258 PACKAGER, AIRCRAFT PARTS (air & space-craft)

Wraps and packs aircraft parts, equipment and materials for shipment:

Compares parts to be shipped with part numbers and quantities listed on packing sheet. Wraps parts in grease proof paper. Tapes parts with masking tape to prevent friction damage during transit. Packs parts in boxes, bags or cartons. Labels container with identifying data and shipping instructions, using stencils and brush or glued labels. May place parts in basket and lower basket into vat of preservative solution, or coat parts with preservative, using brush or spray gun.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 <u>4</u> 4 4 <u>4</u> <u>3</u> 4 <u>5</u> 5	3 1 9	2 3

9317-266 ROLL FINISHER (pulp & paper)

Wraps and seals rolls of paper for shipment or storage, by either of the following duties:

Places paper roll and wrapping roll on steel rollers opposite each other, using power hoist; or by moving roll down incline into position. Attaches free end of wrapping roll to paper roll with adhesive tape or using glue spray. Turns crank to rotate paper roll and wind wrapping paper around roll. Cuts and glues wrapper at ends of wrap, using knife, brush and glue. Pushes button to activate powered device that winds wrapping paper around paper roll, and cuts and glues end of wrapper. Crimps wrapper over ends of roll and glues paper heads and caps over ends of capping device to seal heads, using hand controls. May stencil shipping information on wrapped roll. May roll transfer roll to

weighing scale, manually or using trucks or conveyor. May band ends of roll, using manually operated steel strapping device.

GED: 2 SVP: 2 PA: H 4 7 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 3 4 3 5 5	3 1 9	2 3

9317-274 SHOT BAGGER (explosives)

Fills canvas bags with lead shot for shipment, using dispenser with volumetric measuring chamber:

Positions wheeled packing stand beneath storage bin containing size of shot ordered. Attaches rubber feed pipe from dispenser to bin spout, manually. Pulls lever to start flow of lead shot from storage bin through feed pipe into volumetric measuring chamber and from chamber into canvas bag. Closes mouth of bag with wire, using wire twisting tool. Weighs sample bags at prescribed intervals, using scale. Turns knob to adjust measuring chamber capacity to produce specified weight.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 5 4 4 4 3 5 5	3 1 9	2 3 Y

9317-299 OTHER PACKAGING OCCUPATIONS

This residual group includes packagers and packaging machine tenders that cannot be classified elsewhere in Minor Group 9317.

**9318-OCCUPATIONS IN
LABOURING AND OTHER ELEMENTAL
WORK, MATERIAL HANDLING, N.E.C.**

This unit group includes occupations in labouring or other elemental work, as described under the term title, 02-190 LABOURER/ELEMENTAL WORKER (any ind.), which are concerned with loading, moving, packing materials and products; signalling hoist operators and guiding loads. Activities include: placing, carrying, shovelling, packing, bagging and pouring materials; cleaning and sweeping work places.

9318-110 MATERIAL HANDLER, GENERAL (any ind.)

Loads, unloads, conveys, stores and distributes materials within plant, warehouse, store or other establishments, performing any combination of the following duties:

Places and removes materials onto or from trucks, pallets, trays, racks, shelves, conveyors, furnaces and machines by hand or by using material handling equipment such as, pallet transporters and forklift trucks. Opens containers, using steel cutter, claw hammer or other hand tools. Transports materials from one designated area to another, either manually or by mechanical handling equipment. Secures lifting attachment to materials and signals crane or hoist operator to convey

load to destination. Installs strapping, bracing or padding to prevent shifting or damage of materials or equipment in transit, using hand tools. Stacks or assembles materials into bundles, and bands bundles together, using banding machine and clincher. Removes, labels and identifies sample of materials. Counts and weighs materials, containers or daily work total of units handled, and records information on form or marks objects with identifying information. Attaches identifying tags or labels to materials, or marks information on cases, bales or other containers. Cleans work area, machines and equipment, using air or water hose, brooms, rags and cleaning compounds. Operates mechanical devices such as, conveyors, industrial forklifts and trucks to convey materials from one area to another. May assist in routine maintenance of equipment.

GED: 1 SVP: 2 PA: M 3 4 8 EC: B DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 3 4 3 4 5	1 3	3 2

9318-114 MATERIAL HANDLER, HEAVY (any ind.)

Loads, unloads, conveys, stores and distributes materials and objects of heavy weight, within store, warehouse, factory or other establishment, performing any combination of the following duties:

Specializes in moving bales of fibre to breaker machine, using hand truck or forklift truck. Unloads tanker cars by removing dome caps and connecting hose. Turns valve and controls flow of liquid. Unloads lumber from railroad cars, using special unloading machines or conveyors. Loads materials such as, coal, wheat and other substances, into holds of ships or freight cars, using special chutes or conveyors. Fills drums and containers with liquids, oils, margarine and other substances and covers containers when full, applies identifying labels, and moves to storage area. Moves stage props and other scenery on television, stage or movie studio sets. Replaces damaged cartons. Collects and loads refuse on garbage trucks, using hoisting device at rear of truck. May be designated according to particular type of work performed or product hauled.

GED: 2 SVP: 2 PA: H 2 3 4 EC: B DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 3 4 3 4 5	1 3	3 2

9318-118 MATERIAL HANDLER, LIGHT (any ind.)

Loads, unloads, conveys, stores and distributes materials and objects of light weight, within store, warehouse, factory or other establishment, performing any combination of the following duties:

Performs duties similar to **9318-110 MATERIAL HANDLER, GENERAL (any ind.)**. Specializes in tying twine around bags or other material loaded on pallets. Opens boxes and stores extra on appropriate shelves. Sorts finished articles and boxes them according to size numbers recorded on tags or labels. Places various inserts such as, extra leaves and circulars in unbound catalogues or newspapers, prior to bundling. Straps materials to pallets, using portable strapping machine. Distributes materials to various machines to ensure that production processes are not held up. Tosses waste fibres into baling machine, using pitch fork or shovel. Removes and stacks materials

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from drying or curing racks by hand. May be designated according to particular type of work performed or product handled.

GED: 1 SVP: 2 PA: L 3 4 EC: B DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 <u>3</u> 4 <u>3</u> 4 5	3 1	2 3

9318-122 PACKAGER, HAND (any ind.)

Packages materials and products by hand, performing any combination of the following duties:

Obtains materials and assembles cartons or containers. Inserts fillers and liners, or pads crates. Wraps protective material around product. Inserts, pours or otherwise fills containers with product, counting, weighing or measuring amount and adjusting quantity. Nails, glues, seals and closes boxes or cartons. Stamps, stencils or pastes preprinted labels either on product or container. Sorts packaged product by weight or content. Packs special arrangement or selections of products. Visually inspects materials, products and containers at each stage of packaging process. Records information such as, weight, time and date of filled containers. May clean boxes or crates. May start, regulate or stop conveyor to receive material or dispose of packaged products. May replenish packing material such as, boxes, cartons, containers, crates, wrapping paper, threads and staples. May be designated according to particular type of work performed or product packaged.

GED: 1 SVP: 2 PA: M 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	3 1	2 3 Y

9318-199 MISCELLANEOUS OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK, MATERIAL HANDLING

This residual group includes labourers, packagers, material handlers and other elemental workers not presently classified in Unit Group 9318.

9319-OTHER MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with material handling and related occupations. Activities include: moving ammunition components and explosive priming mixture; salvaging and storing used building materials; moving household and office furniture to and from buildings and moving van.

9319-110 EXPLOSIVE HANDLER (explosives)

Performs any combination of the following duties in moving explosive priming mixture and ammunition components to and from magazine and assembly area, and in painting, sealing and packing grenades: Lifts and carries or moves containers of explosive mixtures, primed

caps, shells and powder, tags, foil and rubber plugs to and from storage to assembly area, manually or using hand truck. Records quantity of priming ingredients, and components received and distributed in magazine log book. Turns valves to replenish water in humidifying trays in wet mixture storage houses. Reports abnormal temperature in dry mixture houses to supervisor. Removes defective components from assembly area, places them in pails containing wetting solution to prevent explosions, and carries them to laboratory for testing or to destruction area for disposal. Fills reservoir of dipping tank with required quantity of paint. Hooks grenade onto wire and dips in paint. Lifts and hangs painted grenade on drying rack. Seals grenade can, using electric canning machine. Packs smoke grenades and primed grenade igniters in cartons. Marks identification data on cartons, using stencil, paint and brush, or ink stamps. Flushes storage houses with water to prevent accumulation of explosive dust, using hose. Cleans storage and work area, shelves and empty containers, using neutralizing solution, mops, broom and water.

GED: 2 SVP: 2 PA: H 3 4 5 6 EC: I 6 DPT: 5 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 <u>3</u> 4 <u>3</u> 4 5	3 1	2 3 Y 8

9319-114 YARD ATTENDANT, USED BUILDING MATERIALS (construction)

Salvages and stores used building materials:

Removes nails from lumber and cuts damaged ends of planks, using hammer and saw. Sorts and stacks cleaned lumber according to dimensions, type and condition. Sorts and stores used millwork, plumbing fixtures, heating equipment and structural steel, according to size and condition. Dismantles plumbing fixtures and cuts metal pipes and beams to customer's specifications, using hand tools and oxyacetylene cutting torch. Cuts lumber to customer's specifications, using power saw. Fills customer's order and transports materials on hand truck. May attach grapple hooks to structural steel beams, and direct crane operator to move and position beams. May drive truck to transfer materials to storage area.

GED: 2 SVP: 2 PA: H 3 4 EC: O 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 <u>3</u> 4 <u>3</u> 4 4	3 1	2 3

9319-118 MOVING VAN HELPER (motor trans.)

Performs any combination of the following duties in moving household and office furniture:

Wraps dishes and fragile articles in paper or corrugated cardboard, and packs loose articles in blankets, as instructed, to prevent damage in transit. Removes pictures and curtains from walls, rolls up rugs, and packs wrapped dishes, household articles and office equipment into boxes or barrels. Carries articles to van, using hand truck or dolly or carrying straps. Disposes articles in van as instructed, to form compact load. Places padding around furniture and secures with ropes to prevent damage. Unloads at destination, carries articles into home or office, unwraps and installs furniture and household articles as

instructed. See also definition for term title, **02-160 HELPER** (any ind.). May drive truck to and from loading and unloading location.

GED: 2 SVP: 2 PA: VH 2 3 4 EC: B 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 4 5 <u>4</u> 4 <u>4</u> <u>4</u> 5	3 1	2 3

9319-199 MISCELLANEOUS MATERIAL HANDLING AND RELATED OCCUPATIONS, N.E.C.

This residual group includes occupations, not elsewhere classified, concerned with material handling, and related occupations that cannot be classified elsewhere in Minor Group 931.

OTHER CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS

This major group includes crafts and equipment operating occupations concerned with operating equipment such as, printing presses, stationary engines, electric power generators, radio and television transmitters, motion picture projectors and pipeline pumps; and performing skilled craft activities such as, bookbinding, photoengraving, recording and reproducing video images and audio sound, processing photographic film, and constructing properties for theatre, motion picture and television productions. These occupations are classified in the following minor groups:

- 951 Printing and Related Occupations
- 953 Stationary Engine and Utilities Equipment
Operating and Related Occupations
- 955 Electronic and Related Communications
Equipment Operating Occupations, n.e.c.
- 959 Other Crafts and Equipment Operating
Occupations, n.e.c.

951-PRINTING AND RELATED OCCUPATIONS

This minor group includes occupations concerned with casting and setting type, marking copy and reading proofs, preparing printing surfaces on plates or cylinders by electronic, mechanical, electrostatic and chemical engraving, photoengraving, casting, moulding, and electroplating processes; operating letterpress, lithographic and gravure presses to print text and illustrations on paper, textiles, metal and other materials; embossing; bookbinding; and related activities. Includes occupations concerned with printing by silk-screening (serigraphic) and photo-gelatin (collotype) processes. These occupations are classified in the following unit groups:

- 9510 Foremen/women, Printing and Related Occupations
- 9511 Typesetting and Composing Occupations
- 9512 Printing Press Occupations
- 9513 Stereotyping and Electrotyping Occupations
- 9514 Printing/Engraving, Except Photoengraving
Occupations
- 9515 Photoengraving and Related Occupations
- 9517 Bookbinding and Related Occupations
- 9518 Occupations in Labouring and Other Elemental
Work, Printing and Related Activities
- 9519 Printing and Related Occupations, n.e.c.

9510-FOREMEN/WOMEN, PRINTING AND RELATED OCCUPATIONS

This unit group includes occupations as described under master title **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in printing, bookbinding and related activities.

9510-110 FOREMAN/WOMAN, BOOKBINDING AND RELATED OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with binding books, pamphlets, business forms and other printed matter by hand or machine, (Unit Group 9517):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

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9510-114 FOREMAN/WOMAN, PHOTOENGRAVING AND RELATED OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with preparing metal or plastic printing plates or cylinders by photogravure processes, mounting and photographing copy, developing latent images on plates, and etching plates to leave raised or incised printing surfaces, (Unit Group 9515):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9510-118 FOREMAN/WOMAN, PRINTING ENGRAVING, EXCEPT PHOTOENGRAVING OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with engraving and etching (by hand, machine or chemicals) plates, cylinders, dies, blocks and stones, used in printing, by hand-blocking, letterpress, gravure and direct lithographic processes, (Unit Group 9514):

Performs duties as described under master title, **01-250 SUPERVISOR, FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9510-122 FOREMAN/WOMAN, PRINTING PRESS OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with setting up and operating cylinder, platen, flatbed, rotary, offset litho, lithographic, flexographic, gravure and proof printing presses to print illustrations, designs and text on paper, textiles, sheet metal and other materials, (Unit Group 9512):

Performs duties as described under master title, **01-250 SUPERVISOR, FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9510-126 FOREMAN/WOMAN, STEREOTYPING AND ELECTROTYPEING OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with making printing plates and cylinders from moulds, matrices, or dies on which type matter and designs have been embossed or impressed, (Unit Group 9513):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9510-130 FOREMAN/WOMAN, TYPESETTING AND COMPOSING OCCUPATIONS (print. & pub.)

Supervises and co-ordinates activities of workers concerned with assembling and setting type by hand or machine, operating linotype, monotype and phototypesetting machines, computerised compositing/typesetting machines and auxiliary equipment, coding manuscripts and copy with typographical instructions, reading proofs to detect and mark errors for correction, and arranging and locking up pages of set type in sequence in readiness for printing, (Unit Group 9511):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9510-199 OTHER FOREMEN/WOMEN, PRINTING AND RELATED OCCUPATIONS, N.E.C.

This group includes occupations, not elsewhere classified, as described under master title, **01-250, SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating the activities of workers engaged in printing and related occupations not presently classified in Unit Group 9510.

9511-TYPESETTING AND COMPOSING OCCUPATIONS

This unit group includes occupations concerned with assembling and setting type by hand or machine; operating typecasting and tape perforating machines, phototypesetting machines and computerized compositing/typesetting machines and auxiliary equipment; coding manuscript and copy with typographical instructions, reading proofs to detect and mark errors for correction; and arranging and locking up pages of set type in sequence in readiness for printing.

9511-110 COMPOSITOR (print. & pub.)

Sets type by hand and assembles type and cuts in galley for printing advertisements, headings and special printing jobs:

Determines type size, style and layout parameters by reading work sheet and using knowledge of composition and printing processes. Measures copy with gauges to calculate length of line and depth of column. Sets composing stick to line length indicated on gauge. Selects type from case and, using tweezers for small type, sets type in compositional sequence while reading from copy. Inserts spacers (leads, slugs or lines of quads) between words or units to balance and justify lines, and between lines to adjust length of setup. Sets assembled composition stick in galley. Repeats sequence till body of text is complete and fills galley. Operates table saw, mitre machine and slug chopper to cut wood blocks, rules, and slugs to lock type into galley. Forwards completed galley for proof printing or spreads ink over type using hand roller, and forces sheet of paper down over inked type, using press, to transfer ink from letters to paper. Examines proof for errors or for proofreader's symbols and makes corrections by exchanging letters. Breaks-up, cleans and replaces letters in compartments according to style and size. May set type to print copy that is unaccompanied by specifications.

GED: 3 SVP: 7 PA: L 4 7 EC: I 7 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 3 3 3 3 3 5 5	1 9	0 Y

9511-114 IMPOSER (print. & pub.)

Arranges pages of set type in chase frame according to specified layout:

Positions pages of set type in chase so that pages will be printed on sheet in correct sequence for folding and trimming. Inserts spacing material at top, bottom, and sides of pages to provide balanced margins. Checks alignment of positioned pages, using rulers, to produce exact register with printing on reverse side of page. Inserts or removes spacing material, as required, to achieve uniformity in page dimensions. Examines type matter for balanced spacing. Inserts quoins and locks type pages in chase. Arranges pages of type in position for an entire book, newspaper, pamphlet or magazine. May operate proof press to print proof of assembled type and return type to compositor for correction of errors. May assemble and lock embossing plates and dies into chase, according to master layout sheet specifications.

GED: 3 SVP: 7 PA: M 4 7 EC: 1 7 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 3 4 3 3 5 5	1 9	0 Y

9511-118 MAKEUP SETTER (print. & pub.)

Arranges, sets type and cuts headings in chases, to produce forms for direct printing or for the manufacture of matrices from which stereotype and electrotype plates are made: Places chase on imposing stone and transfers type and cuts from galley to chase, arranging type forms and units according to dummy (makeup sheet). Aligns spacing material between type and blocks and between columns. Inserts or removes leads for correct spacing between lines. Places quoins between type matter and chase frame and locks assemblage in place. Makes up forms for each page to be printed. May operate proof press or typecasting machine.

GED: 3 SVP: 7 PA: M 4 7 EC: 1 7 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 3 5 5	1 9	0 Y

9511-122 LINOTYPE OPERATOR (print. & pub.)

Operates keyboard controlled typecasting machine to cast in metal lines of type (slugs) and deposit them in galley: Reads work order and reviews specimen copy. Selects magazine corresponding to specified type size. Sets up machine to cast designated type and adjusts marginal stops and gauges to regulate length and thickness of lines to be cast. Reads copy and strikes appropriate keys to select and drop matrices into assembler to form words, figures, and spacing indicated on copy. Pulls lever to release matrices to casting mechanism and to deposit cast slugs in galley. Removes galley and passes for proof printing. Sets new slugs to correct errors as indicated on proof sheet. Places pigs of type metal on feed chain of melting pot to replenish supply. May operate numerically controlled linotype machines. May specialize in operating particular type of linotype machine and be designated accordingly.

GED: 3 SVP: 7 PA: L 4 7 EC: 1 7 DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 3 3 3 5 5	1 9	0 Y

9511-126 LINEUP EXAMINER (print. & pub.)

Examines position and alignment of pages, groups, or units of proof form or layout, to determine if proof conforms to specifications: Places proof sheet on glass top of lighted lineup table. Moves straightedges, mounted on table at right angles to one another, over proof copy to verify alignment of printed material. Checks page position and folio continuity. Examines register of colour forms for conformance to key form. Marks deviation from specifications at appropriate points on copy. Marks trim, stitch and fold lines for bindery processes.

GED: 3 SVP: 7 PA: L 4 7 EC: 1 7 DPT: 2 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 2 4 4 4 3 5 3	1 9	0 Y 2

9511-128 TYPESETTER, PHOTOCOMPOSITION (print. & pub.)

Operates keyboard of computerized phototypesetting machine, equipped with video screen, to enter copy and automatically set type: Reads markup instructions on copy to determine typesetting specifications to be incorporated. Activates power source and loads disk or magnetic tape cassette into drive mechanism. Keys in commands to call up appropriate program and arranges copy and instructions on copy board. Inserts photosensitive paper or film into photo unit. Depresses keys to set copy parameters according to markup instructions and reads and enters copy by typing at keyboard, to transmit data to photo unit via temporary storage memory. Verifies inputting accuracy by reading text on screen and depresses keys to make deletions or corrections. Removes exposed paper or film from photo unit and develops material in automatic developer, or actuates machine controls to process material in similar developing unit contained in machine. Photocopies developed material for subsequent editing and proofreading and enters copy and layout corrections, as required. May operate video setter machine to produce hard copy of type, from material stored on disk or magnetic tape.

GED: 4 SVP: 6 PA: L 4 7 EC: 1 DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 2 3 3 3 5 4	9 1	0 Y

9511-129 COPY MARKER (print. & pub.)

Examines and codes manuscripts and copy with typographical instructions to prepare material for typesetting keyboard entry: Examines copy, reads manuscripts and customer specifications, or interprets news page dummy to determine type size, style and layout and space allocation requirements. Estimates space to be occupied in type by copy, using measuring instruments and gauges. Establishes print style, type weight and size by comparing available space against typesetting effect(s) desired, and by considering aesthetic value to create an effective arrangement. Marks individual pages with coded instructions to direct keyboard operators on formatting and typesetting specifications to be incorporated into body of text. Forwards marked

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up copy to keyboard operators for entry. May forward proof to customer for approval.

GED: 4 SVP: 6 PA: S 4 EC: I DPT: 2 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 2 2 3 4 4 4 5 5	1 9	9 0

9511-130 BRAILLE STEREOGRAPH MACHINE OPERATOR (print. & pub.; clerical)

Operates an electric stereograph machine to impress combinations of braille symbols on metal sheets to form matrices for making braille publications:

Cuts metal sheet to size and inserts sheet into carriage of machine. Depresses combinations of keys, using fingers and palm of hand, to form sentences of braille letters according to taped dictation or braille manuscript. Controls spacing of braille on sheet by depressing foot pedal. Completes one side of sheet and proofreads by hand, to check for errors. Reinserts reverse side of corrections with brailler perforating pencil. Forwards completed matrix to printing.

GED: 4 SVP: 5 PA: L 4 6 8 EC: I DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 3 3 3 3 4 5	1 9 3	Y 2

9511-132 COMPOSING ROOM PROOFREADER (print. & pub.; clerical)

Reads proof of typeset copy to detect and mark for correction, grammatical, typographical or compositional errors:

Compares and reads original copy against proof to check for spelling and grammatical errors and to ensure that typeface, type size and column widths match job specifications. Indicates errors by marking faults with special symbols. Returns marked up proofs to compositor or typesetter for corrections, additions or deletions in the copy. Validates revised proofs to ensure all corrections are made. Forwards proofread galley to next operation.

GED: 4 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 6 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 2 4 4 3 1 4 4 4 5 5	1 3	2 0

9511-133 SCANNER READER MACHINE OPERATOR (print. & pub.)

Operates computerized scanner reader machine in newspaper printing plant, to receive and prepare newspaper story copy for photographic printing, to meet printing deadlines:

Loads selected newspaper copy received from news service electronic teletype systems in computerized scanner reader machine. Operates scanner reader machine, by actuating controls, to automatically scan and project typewritten copy on video display screen. Proofreads text and makes changes to copy, by striking keys on attached computer terminal keyboard. Places story in memory of computer, by depressing key, when satisfied material is error free. Removes disk or magnetic

tape and forwards material to phototypesetter to produce photographic print of story. May operate modem operated word composer to receive coded news stories and prepare stories for printing.

GED: 4 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 3 1 3 3 3 5 5	1 9	0 Y

9511-134 TYPECASTING MACHINE OPERATOR (print. & pub.)

Operates machine to cast and assemble single characters of type for printing:

Places roll of perforated tape on reel and threads end through guides to winding reel. Sets composing stick to length of line specified in casting instructions. Inserts matrix case and locks case in place. Locks galley on bed of machine. Activates machine and monitors operation that automatically selects, casts, cools and assembles metal type. Stops machine when galley is full or when strip is completed. Removes and stores reels and matrices, and forwards galley for proofing. May operate casting machine to produce in quantity individual pieces of type such as, leads, column rules, borders, bases, dashes and special type faces. May specialize in operating particular kind of typecasting machine and be designated accordingly.

GED: 3 SVP: 6 PA: L 4 EC: I 6 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 3 5 5	1 9	0 Y

9511-135 IMAGE PROCESSING OPERATOR (print. & pub.)

Operates keyboard of computer terminal, equipped with video screen, to compose and recompose page layout designs, and prepare original images for further processing:

Reads work order and inspects original images to determine colour requirements and layout specifications. Selects and loads appropriate data disk and enters identification codes onto computer keyboard. Calls up image on video screen, by manipulating keyboard controls, or mounts photographic transparencies not yet scanned onto plotting and reading unit, to scan and convert image into digital computer signals. Corrects unsatisfactory colour matches, by keying in colour density measurements and entering command codes, to alter image screen and revise stored data. Composes new pages, by moving cursor across digitizing table and keying in specific graphic and layout instructions, to establish co-ordinates and arrange elements according to art board specifications. Checks final page versions for errors, by studying image on screen, and makes corrections, as required. Stores page data instructions and recomposed images on disk or magnetic tape, by entering commands, and forwards disk or tape to camera department. May produce dry negatives of each colour to be reproduced, by operating photographic unit attached to system.

GED: 4 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 2 3 3 3 3 5 4	9 1	0 Y

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9511-137 COPY TYPIST (print. & pub.; clerical)

Operates typewriter-like justifying keyboard machine, equipped with changeable fonts of various sizes and styles, to compose and produce master copies such as; stencils and direct plates, for printing reproduction:

Reads rough draft of copy and instructions to determine size of font and vertical, horizontal and margin spacing required for job. Selects and inserts appropriate type font ball on holder. Selects and inserts specified vertical line spacing gear. Sets horizontal spacing guide, adjusts impression to suit style and size of font to be used, and sets margins by positioning keys and guides according to instructions. Marks various positions such as, columns, heads, sub-heads and box heads on margin indicator dial or plotting scale gauge. Inserts stock into carriage of machine and operates keyboard, by typing at keyboard, while reading from original to compose reproducible copy. Submits composed material to proofreader and makes any required corrections. Forwards corrected copy to layout or camera room.

GED: 3 SVP: 5 PA: S 4 7 EC: I 5 DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 <u>3</u> 2 2 3 5 5	1 3 9	0 Y

9511-138 PHOTOTYPESETTER OPERATOR (print. & pub.)

Operates keyboard of automatic phototypesetting machine to compose and photographically print type matter on strips of photosensitive paper or film to be used in making printing plates:

Selects master alphabet disk, photomatrices or photomechanical type to meet job specifications. Loads roll of photosensitive paper, film or film cassette into camera magazine and pulls lever to open exposure slot. Installs master alphabet disk, photomatrices or photomechanical type assembled on composing stick, on machine. Adjusts machine settings, according to instructions on layout copy, to meet type size and style requirements. Activates typesetter and adjusts lens system to vary type size. Operates shutter and light controls to expose film or sensitized paper. Reads copy and depresses keys on keyboard to select individual matrices of characters containing small film negatives to be printed on sensitized material. Cuts material with knife and removes composition from magazine in preparation for processing. May feed composition through automatic developer to develop and fix the type.

GED: 3 SVP: 5 PA: S 4 7 EC: I DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 4 <u>3</u> 3 4 5 5	1 3 9	0 Y

9511-142 MONOTYPE KEYBOARD OPERATOR (print. & pub.)

Operates monotype keyboard machine to produce perforated tape used to program typecasting machine:

Fastens copy containing instructions to copyholder of machine. Selects and installs bank of keys to make specified size and style of type. Sets and locks scale to indicate spacing of words in line and adjusts line length indicator. Installs roll of paper strip and threads end of strip through guides on machine to take up reel. Admits compressed air to machine. Reads copy and depresses keys on keyboard to produce

perforated tape. Tears perforated strip from supply roll, attaches typecasting instructions to reel and forwards reel for use in casting. May code tape for computer and forward coded tape to computer room for further processing.

GED: 3 SVP: 5 PA: S 4 7 EC: I DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 <u>3</u> 3 3 5 5	1 3 9	0 Y

9511-143 ELECTRONIC FORMATTER (print. & pub.; bus. serv.)

Operates computerized page layout machine that automatically alters and encodes formatting and printing instructions stored on magnetic tape, to modify instructions according to customer need, prior to printing:

Reviews work order to identify type of text and determine formatting requirements, as specified by customer. Loads received magnetic tape into tape drive of laser printing machine and activates printer to produce copy of present layout. Submits layout copy and customer instructions to programmer analyst, to draft formatting modifications. Receives modified format and keys in pertinent coordinates on terminal keyboard such as, text orientation, size, type and boldness of typeface and binding instructions. Prints sample of revised format to verify programming instructions and merges design data with revised format on tape, by entering commands at terminal, to complete process. Stores final program on customer tape and submits tape to printer operator for printing. May create graphics and logos according to customer requirements, using similar equipment.

GED: 3 SVP: 4 PA: S 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 <u>4</u> 3 4 5 5	1 3 9	0 Y

9511-144 BRAILLE KEYBOARD OPERATOR (print. & pub.; clerical)

Operates keyboard of computerized brailler to input print materials into computer for braille translation, to produce raised braille type used to print braille publications:

Assesses original copy to determine appropriate format for braille transcription. Depresses command keys on computer terminal keyboard, to enter formatting codes to arrange materials according to accepted standards. Inputs print materials into computer for automatic translation, by accurately typing text at keyboard. Calls up proof copies of print or braille for proofreading to ensure accuracy of translation. Makes corrections and updates, as required. Calls up final copies for distribution. May transcribe text without computerized translation, by directly typing text on brailler.

GED: 3 SVP: 4 PA: L 4 6 EC: I DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 <u>3</u> 2 2 3 5 5	1 3 9	0 Y

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9511-146 TYPESETTING MACHINE TENDER (print. & pub.)

Tends and adjusts one or more linecasting machines, equipped with tape converter unit, to produce type composition automatically: Loads spool of perforated tape on machine reel. Threads end of tape through feed mechanism of converter unit. Turns control to start unit that sets type automatically, as directed by coded signal on perforated tape. Observes operation of machine to detect malfunction of keyboard, tape feeding or other machine mechanisms. Adjusts mechanical components of machines, using hand tools, or depresses keys on keyboard, manually, to clear jamming. Makes minor repairs to machine using hand tools.

GED: 3 SVP: 4 PA: L 4 7 EC: 1 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> 4 3 5 5	1 3 9	2 Y

9511-150 PHOTOCOMPOSING MACHINE TENDER (print. & pub.)

Tends photocomposing machine to transfer data from perforated or magnetic tape to film or photographic paper: Loads and secures roll or cassette of film, or paper in machine magazine. Secures roll of perforated or magnetic tape on machine reel and threads end of tape through machine feed rollers. Selects type font, according to size and face of type specified, and positions it on photographic unit. Activates machine that automatically prints type on film or paper according to coded signal on tape. Removes finished copy from magazine for development. May adjust light intensity and select line spacing according to size and face of type. May process exposed film or paper in automatic developer.

GED: 2 SVP: 3 PA: L 4 EC: 1 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 4 <u>4</u> 3 5 5	1 3 9	2 3 Y

9511-199 OTHER TYPESETTING AND COMPOSING OCCUPATIONS

This residual group includes typesetting and composing occupations not presently classified in Unit Group 9511.

9512-PRINTING PRESS OCCUPATIONS

This unit group includes occupations concerned with setting-up and operating cylinder, platen, flat-bed, rotary, offset-litho, lithographic, flexographic, gravure and proofprinting presses to print illustrations, designs and text on paper, textiles, sheet metal and other materials. Occupations concerned with setting-up, operating and tending printing machines, other than standard printing presses, that print designs or lettering on paper, textiles or other materials are classified in Unit Group 9519, PRINTING AND RELATED OCCUPATIONS, N.E.C. Occupations concerned with operating, or tending stamping machines to stamp or imprint designs or lettering on finished products are classified in Unit Group

9599, OTHER PRODUCT FABRICATING, ASSEMBLING AND REPAIRING OCCUPATIONS, N.E.C. Occupations concerned with reprography and operating office embossing and addressing machines are classified in Unit Group 4141, OFFICE MACHINE OPERATORS.

9512-110 JOB PRINTER (print. & pub.)

Compares type, according to customer requirements, and sets up and operates a variety of relief and offset printing presses:

Discusses requirements with customer or reads work order. Selects type from type case and inserts it in composing stick as specified in copy and printer's dummy. Inserts spacers between words and lines. Slides type from stick into galley. Sets up and operates proof press. Lays form (type locked in chase) on bed of proof press, inks type, fastens sheet of paper to press roller and pulls roller over form. Pulls proofs of galleys, and engravings (cuts) when required, corrects typographical errors, and submits proofs to customer for approval. Makes changes as desired by customer. Assembles cuts and type in page form and pulls page proof. Checks proof for errors and clarity of impression. Corrects errors by resetting type and improves impression by laying sheets of paper under type or by tapping face of type with mallet. Submits page proofs to customer for final approval. Sets up printing press. Places form on cylinder or press bed and tightens clamps, using wrench. Fills fountains with inks of specified colours and turns thumbscrews to adjust flow. Adjusts feed guides, and grips, according to size and weight of paper. Jogs press to print preliminary sheets and examines for clarity of impression. Makes any necessary adjustments to press and starts press on final run. Examines printed sheets periodically. Cleans ink rollers at end of run, using solvent. Loosens clamps and removes forms. Performs duties of an offset pressman when operating an offset-press. May make photo-offset plates for use in offset-litho presses.

GED: 4 SVP: 8 PA: M 4 7 EC: 1 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> 5 4	1 9 0	0 Y 9

9512-114 PRESS OPERATOR, INK EVALUATION (chem., n.e.c.: print. & pub.)

Sets-up and operates various types of printing presses to test and evaluate ink performance and to detect and identify causes of inking problems in printing process using knowledge of printing techniques and materials:

Selects specified inks and stock, such as sheet metal and foil, paper, and plastic film, according to work order. Starts press, sets and observes thermometers, tachometers and pressure gauges. Examines printed output for clarity and to detect signs of colour change and bleeding. Evaluates ink performance and its applicability to various materials and printing techniques; records evaluation. Examines ink viscosity before and during printing to determine degree of viscosity producing best results. Cleans and oils presses.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 5 DPT: 2 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>3</u> 5 2	1 9 0	0 Y 9

9512-118 PROOF-PRESS OPERATOR, PHOTOENGRAVED PLATES (print. & pub.)

Sets up and operates hand-or power-driven flatbed cylinder proof press and prepares data on colour matching and ink modification to prove printing quality and register of photoengraved printing plates: Clamps plates to press, applies ink to rollers using spatula, and positions guides, grippers and metal fingers to guide paper through press. Wraps packing sheets and tympan around cylinder to form cushion. Cuts and pastes paper overlays under tympan blanket to increase impression of low areas. Depresses pedal to open grippers, inserts blank sheet, and turns crank of hand-driven press, or starts motor of power-driven press to print proofs for black and white, and progressive-proofs for colour plates. Examines proof with magnifier to determine printing quality of dots and lines and areas requiring correction, such as re-etching and additional finishing, as guidance for engraver. May prepare and write data on colour matching and ink modification to guide press operator.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 3 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 4 2	1 9 0	0 Y 9

9512-122 ROTOGRAVURE PRESS OPERATOR (print. & pub.)

Sets up and operates rotary-type press that prints illustrative and other subject matter by gravure process: Installs engraved cylinder in press, using hand tools. Adjusts doctor blade to remove excess ink from surface of printing cylinder. Threads web (roll) of paper or other printing stock through press, adjusting guides and tension bars. Sets focus of electronic scanners on guideline of paper for multicolour printing, to automatically control registration. Regulates temperature in web-drying chambers and adjusts automatic cutter at discharge end of press. Starts press on production run and examines printed material during run, adjusting press as required, to produce materials to specification. Directs press assistants and helpers in feeding and unloading press, replenishing ink supplies, cleaning equipment and other press operations.

GED: 4 SVP: 7 PA: L 4 7 EC: I 5 DPT: 6 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 2	1 9 0	4 0 Y

9512-126 OFFSET PRESS OPERATOR (print. & pub.)

Sets up and operates offset printing press to print single and multicolour copy from lithographic plates: Reads job order to determine press operating time, quantity to be printed and stock specifications. Directs press assistants engaged in preparing press for printing run. Washes plate, using sponge and water to remove protective coating. Builds-up back of plate with sheets of paper to raise plate to printing level. Clamps plate on cylinder and applies paper to blanket cylinder to build-up diameter of cylinder according to requirements. Adjusts space between blanket and impression cylinders according to thickness of paper stock using

wrench to tighten or slacken cylinder. Fills ink fountains. Compares colour proof sample to colour settings on console and adjusts colour settings up or down, by manipulating toggle switches. Operates press at reduced speed to visually assess quality of registration and check pagination. Increases press speed, examines print quality and makes required colour adjustments, to obtain specified colour registration. Directs press assistants and helpers to feed paper stock and off-bear printed product. Sets counter to produce specified quantity of product. Directs press assistants during shut down and cylinder wash-up.

GED: 4 SVP: 7 PA: L 4 7 EC: I 5 DPT: 6 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 3	1 9 0	0 Y

9512-130 PLATEN PRESS OPERATOR (print. & pub.)

Sets up and operates platen press to print, perforate, number and cut forms, cards and similar material:

Reads work order to determine setup and operating procedures. Inserts type chase, die or plate in press bed and tightens locking attachment, using wrench. Inserts perforators, when indicated, in guides and positions punches and dies using lock-key. Sets numbering machines. Turns thumbscrews on ink fountain and adjusts rollers to regulate ink-flow. Feeds single sheets into press by hand, places stack of sheets on automatic feed tray or mounts roll of stock on mandrel of automatic feeding mechanism. Starts press and runs off preliminary copies. Examines copies and adjusts controls to obtain uniform printing and perforating and specified colour registration. Completes production run, examining printed material regularly to check quality of printing and perforating. May direct press assistant to replenish automatic feeding mechanism or to feed material to machine by hand.

GED: 4 SVP: 7 PA: L 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 4	1 9 0	0 Y

9512-134 PROOF-PRESS OPERATOR, GRAVURE (print. & pub.)

Sets up and operates press to print proof from etched cylinders for verifying quality of etching:

Positions length of paper, foil or other material of appropriate width on printing drum. Lifts printing cylinder into position on machine, using hoist, and moves lever to close machine chucks on roller spindles. Aligns pitch marker with cross hairline on cylinder using magnifying glass, and turns thumbscrew to secure cylinder. Secures doctor blade against printing cylinder by attaching suspended weights to hooks on blade or by adjusting tension springs. Mixes inks to specified colours and pours ink between doctor blade and cylinder. Releases brake on printing drum and moves lever to force drum against cylinder. Starts machine, rotating printing cylinder one revolution to print impression. Examines print proof to verify quality of etching. Removes and replaces cylinder with other cylinders in colour sequence and aligns them with registration marks to obtain prescribed colours, highlights and density of tone. Cleans machine and cylinders with solvent and

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dries cylinders with paper towel. May repeat process until acceptable proof-print is produced.

GED: 4 SVP: 7 PA: M 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 2	1 9 0	0 Y

9512-138 PROOF-PRESS OPERATOR, OFFSET LITHOGRAPHIC (print. & pub.)

Sets up and operates proof press to test quality of offset-lithographic printing plates, using knowledge of ink colour blending, paper composition and lithographic printing processes:

Aligns proof plate on cylinder or bed of press, using fixed gauge and ruler. Tightens lock nuts to secure plate in position. Applies ink repellent to non-printing areas of plate, using hand roller. Applies ink to rollers, using palette knife. Presses button to start automatic press and feeding unit, or turns crank to rotate rubber-blanket roller against plate and over paper to transfer image to proof paper. Examines proof to detect printing imperfections caused by flaws in printing plate, and notifies plate maker of imperfections. Pulls proof for each colour, separately and in sequence of surprinting, for customer approval and to establish standards for production run.

GED: 4 SVP: 7 PA: L 4 7 EC: I 5 7 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 2	1 9 0	0 Y

9512-142 WEB PRESS OPERATOR (print. & pub.)

Sets up and operates multi-unit, web-fed rotary press to print newspapers, books and periodicals according to written specifications: Reviews work order to determine number of pages in press run, ink and page control settings and the positioning of lead pages. Locks printing plates on printing cylinder in desired sequence and threads loose end of paper supply roll (web) through and around rollers to cutter and folder. Adjusts compensators to guide paper over rollers and cylinders. Loosens locknuts and thumbscrews and turns hand wheel to adjust position of cylinder to ensure accurate registration, quality of impression and precision folding. Starts press to commence run. Monitors production and examines printed sheets visually after registration or position printing, and readjusts guides and controls to correct spacing errors. Selects newspaper or other printed material sample from folding conveyor during run to conduct quality check. Directs press assistants to replenish paper roll and ink supplies, replace cutting blades and worn ink rolls or plates during or after press run. Inspects, cleans and lubricates moving parts of press.

GED: 4 SVP: 7 PA: M 4 7 EC: I 5 DPT: 6 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 4	1 9 0	0 Y

9512-146 CYLINDER PRESS OPERATOR (paper prod.; print. & pub.)

Sets up and operates cylinder printing press to print, number or emboss a variety of products, such as bank notes, checks, postage stamps and lottery tickets:

Verifies size, colour and type of paper and colour of inks from job order. Replenishes ink supplies, tests concentration of ink solutions and adjusts and balances ink and water flow controls according to job requirements. Fans and loads paper stock into feeder. Wipes plate down to ensure ink will print only on off-line areas. Locks plate around cylinder or on flat-bed using hand tools. Fills ink fountains with specified inks. Adjusts delivery tables, feed guides and grippers. Starts press and runs off proof sheet. Checks colour registration and compares sample to specifications. Adjusts press controls, inking fountains and automatic feeders, and packs impression cylinder with paper overlay to equalize off-level areas, as required. Completes run, monitoring production and examining products for quality. Removes printed stock from delivery table and places stock onto skid. Cleans press and washes rollers to remove residual ink.

GED: 3 SVP: 7 PA: M 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 3	1 9 0	0 Y

9512-150 LITHOGRAPHIC PRESS OPERATOR, SHEET METAL (metal stamp., press. & coat.; print. & pub.)

Sets up and operates lithographic press to print descriptive material and designs on sheet metal:

Installs printing plates on press cylinder, using hand tools and gauges. Adjusts conveyor, feed guides and inking and varnish rollers, using hand tools. Replenishes ink fountain and thins varnish to required viscosity for application as protective coating for printed sheeting. Starts press and makes trial run. Adjusts controls to regulate flow of ink and varnish and rate of automatic feed. Examines quality of printing, using ruler, micrometer and magnifying glass, and makes required adjustments. Restarts press and examines sheeting during process. Observes heat gauges and regulates controls of drying oven to maintain specified heat. Lubricates and cleans machinery. May keep production records.

GED: 3 SVP: 7 PA: M 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 4 3 5 4	1 9 0	0 Y

9512-154 PRINTER-SLOTTER OPERATOR (paper prod.; print. & pub.)

Sets up and operates press to print and slot paperboard container blanks, according to work orders:

Selects, installs, and adjusts slotting and perforating knives in machine according to specified slot dimensions and perforation spacing, assisted by other workers. Positions and glues printing plate around cylinder according to specifications, using rule and hand tools. Fills ink fountain with specified inks and turns thumbscrews to adjust flow of ink. Adjusts paper guides on feed table and automatic stacker, adjusts pressure of feed rollers, using hand tools and feeler gauge, and starts machine. Measures printed-slotted blanks to verify machine setup.

Examines printed-slotted blanks for even ink distribution, colour fidelity, printing flaws and wrinkles. Directs other workers to assist in machine operation.

GED: 3 SVP: 6 PA: L 4 7 EC: I 5 DPT: 6 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 4	1 9 0	0 Y

9512-158 EMBOSsing-PRINTER (print. & pub.)

Sets up and operates printing press to emboss business cards, letterheads, announcements and related items from deeply engraved plates and dies:

Tapes plate in plateholder, or installs steel dies on bed on press, using wrench. Tapes strawboard counter die to ram of press to maintain flatness of finished cards or sheets. Lowers ram to impress counter die. Adjusts depth of impression by turning handle to raise or lower counter die. Cuts away excess strawboard of counterdie using knife. Thins ink to desired consistency, fills ink fountain and adjusts rollers. Sets paper guides and plate or doctor blade, using wrenches. Activates electric drying lamps over take off conveyor. Starts press to run proof copy. Examines proof and adjusts press by turning handwheels to obtain uniform impression and colour registration. Engages automatic feed or feeds sheets to press by hand, aligning them against paper guides.

GED: 3 SVP: 6 PA: L 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 4	1 9 0	0 Y

9512-162 FLEXOGRAPHIC-OFFSET PRESS OPERATOR, PLASTIC CONTAINERS (print. & pub.)

Sets-up and operates flexographic-offset printing press to print lettering and designs on plastic lids and containers:

Loads hoppers with lids or containers and fills fountains with ink-repellant and inks specified in work order. Attaches holding devices, shoe or spider, to printing press and aligns them with blanket cylinder. Attaches flexible printing plates to cylinders, using double-sided adhesive or strap arrangement, and aligns edges of plates with horizontal and vertical lines scribed on cylinder. Starts press to obtain proof. Examines proof and makes adjustments, using hand tools, to ensure correct alignment and colour registration. Starts press, automatic feed, conveyor and drying system. Refills hoppers and ink fountains as required. Stirs ink in fountains regularly, using spatulas. Stops press at intervals to clean plates and rollers.

GED: 3 SVP: 5 PA: M 3 4 7 EC: I 5 7 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 4	1 9 0	0 Y

9512-166 FLEXOGRAPHIC PRESS OPERATOR (print. & pub.)

Sets up and operates flexographic printing press to print designs, trademarks or other impressions on rolls of material such as paper,

aluminum foil or plastic film:

Mounts flexible plates or dies on cylinders. Installs cylinders on shafts and secures assembly in bed of press. Installs ink trays and carries troughs to pump and inserts pump hoses in troughs to feed ink into trays. Checks viscosity of ink or dye, using viscosimeter and adds solvent if required. Aligns cylinders to main drum by hand, to ensure consistent contact and pressure during press run. Inserts shaft through core of material to be printed and secures roll on press in feed position. Splices end of roll to trailer sheet in press using adhesive tape and turns handwheel to regulate roll tension and feed. Starts press by depressing button on console to run press at slow speed to produce sample. Activates over-head burners to dry ink on material. Cuts section of printed roll, compares colour impression on sample to specifications and checks sample for imperfections, such as blurred or off-centre impressions. Brings colour up or down by adjusting viscosity controls to lighten or darken colours, if required. Increases press speed gradually and checks quality of impression, bringing press to production speed for continuous run. Observes production and monitors console controls, web feed and ink flow, to ensure quality of printing and run footage meets work order specifications. Cleans appliances and lubricates press.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 3	1 9 0	0 Y

9512-168 PLASTIC SHEETED-OFFSET-PRESS OPERATOR (print. & pub.; plastic prod.)

Sets up and operates offset printing press to print information on plastic sheets, used to produce plastic cards:

Mounts and clamps printing plate on cylinder to make impression. Adds backing paper to blanket to bring blanket to required thickness of stock. Mounts and clamps blanket to cylinder to receive impression. Replenishes ink fountain supplies using ink knife and adjusts keys to ensure continuous supply of ink to press. Adjusts feeder guides and delivery mechanisms, by turning screws according to size of stock. Removes and replaces suckers according to weight of stock. Loads stock in feeder and depresses press controls to conduct test run by jogging sheets through press. Makes adjustments to press according to test samples. Starts press by moving levers to engage feeders, lowers dampening form roller and inking form rollers onto plate, to print ink on sheet. Reads gauges and adjusts controls to create specified air pressure vacuum, according to size of stock. Alters operating speed of press to accommodate type and size of stock. Monitors press operation by observing press unit and pulling samples to check quality of printing. Cleans and services press by washing down rollers with solvents, replenishing water and etch solutions, and by oiling and greasing press.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 7 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 3	1 9 0	0 Y

9512-170 FLEXOGRAPHIC-PRINTING-CYLINDER ASSEMBLER (print. & pub.)

Locates and glues flexible plates on removable press-cylinders to reduce make-ready time and increase productive running time for

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flexographic presses:

Reviews work order, and verifies dimensions on sample layout using steel rule. Mounts sheet of white paper on machine cylinder to mark layout, using pressure sensitive tape. Draws horizontal and vertical lines on white paper, corresponding with sample layout, using pen and steel rule, or by fastening and adjusting pen in travelling holder on horizontal bar of machine. Selects specified press cylinder and gear system. Places double-sided adhesive backing on cylinder. Lowers reflector strip to reflect mirror image of lines on white paper. Repeats procedure for each cylinder ensuring registration of printing and arranges them in printing sequence. Identifies completed cylinders with press and work order numbers.

GED: 3 SVP: 5 PA: M 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 5	1 9 0	0 Y

9512-172 ASSISTANT PRESS OPERATOR (print. & pub.)

Assists press operator in making ready, operating and maintaining roll-fed or sheet-fed, single-or-multi-colour, flatbed, cylinder, offset, flexographic, or web press by performing any combination of the following duties:

Confers with press operator and reads operating instructions prior to production run, to determine production requirements. Assists press operator to install paper packing on back-up cylinder, fasten reinforcing bars to metal printing plates and offset blankets, and install plates and blankets on press cylinder, using hand and power tools. Adjusts machine parts such as feed and delivery guides, grippers, tapes and cams, as directed by press operator. Sorts and places written press operating instructions and specifications at various units of press to ensure instructions are accessible to press crew during production. Replenishes ink fountain supplies, maintains coating solution levels and ensures ready supply of printing stock. Tends press during absence of press operator and assumes responsibility for operation of press. Observes and monitors mechanical operation of press, to ensure specified operating levels are maintained. Makes specified adjustments to press and reports deviations from normal operating conditions to press operator. Removes loaded skid of printed stock from stacking unit, using handtruck, and replaces with empty skid. Maintains press by assisting press operator to lubricate press, using grease gun and oil can. Removes and replaces worn rollers and adjusts pressure between rollers, as directed by press operator, using hand tools. Cleans press using solvents, brushes and rags and maintains work area. May be designated according to type of printing press used. May be required to serve apprenticeship.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 4	1 9 0	3 0 Y

9512-174 THERMOGRAPHIC PRINTER (print. & pub.)

Adjusts and operates heated printing press to produce raised printing on greeting cards, letter heads, envelopes and other specialty items: Reads work order to determine job specifications. Mounts plate on printing cylinder or press bed by tightening clamps to secure plate in place. Inks press by pouring specified ink into trays and adjusting ink fountains to obtain even ink distribution. Loads feed tray with stock

and adjusts guide bars and vacuum to feed stock into press. Fills hopper on conveyor with specified powder used to dust wet print. Adjusts vacuum system for removing excess powder from printed surface. Brings up temperature of drying oven unit by regulating temperature controls and sets speed of conveyor to speed of press. Starts press and conveyor, observes operations and makes necessary adjustments. Checks samples of printed stock for registration, quality of impression, and drying condition, during production.

GED: 3 SVP: 5 PA: L 4 7 EC: I 5 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 4	1 9 0	0 Y

9512-178 PRESS OPERATOR, TRANSFERS (print. & pub.)

Sets up and operates press to print designs, trademarks and other identifying information on continuous roll of paper for use as dry transfers or hot iron patterns:

Turns setscrew to secure selected die in machine holder. Slides doctor blade in machine slots and plugs ends of machine trough with paper wads to prevent loss of melted ink. Positions block of dry ink in machine trough and adjusts burner flame to melt ink. Measures lettering or design on die with machinist's scale to determine widths of pressure roller and paper required. Installs and secures pressure roller, using wrench. Mounts paper roll in machine and threads end between pressure roller and die, fastening end to winding spindle. Turns handwheel and moves lever to adjust angle of doctor blade, tension of paper, and pressure of roller. Sets automatic counter at zero. Starts machine and observes paper for accuracy of printing. Stops machine when specified number of transfers are printed as indicated by automatic counter. Removes printed roll of transfers and die from machine. Cleans and lubricates machine and die, using solvent, and cloths, and makes minor repairs.

GED: 3 SVP: 4 PA: L 4 EC: I DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 4	1 9 0	0 Y

9512-182 PRINTER, CASES AND LININGS (print. & pub.)

Operates platen press that prints designs or identifying data on sheet material, such as leather, plastic or satin, and on finished products such as spectacle and jewellery cases:

Inks disk of platen press, using spatula. Adjusts inking rollers, using hand tools. Arranges type or engraving blocks in chase according to specifications and secures, using wrench. Locks chase into position in die plate on press bed by turning set screws. Positions material or case to be printed against adjustable guides. Starts press to obtain proof and examines for alignment and clarity of impression. Adjusts press as required. Starts press and feeds and removes printed materials by hand. May operate two presses, with different coloured inks or metal leaf for overprinting sections of design.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 5	1 9 0	0 Y

9512-186 PROOF-PRESS OPERATOR, LETTERPRESS (print. & pub.)

Operates press to make proofs or reproducible copy from set type or printing plates:

Places galley or locks type-filled chase onto press bed, or wraps curved plate around press cylinder. Applies ink to roller using ink knife. Depresses pedal to move ink roller over printing surface or inks it using hand roller. Places sheet of stock on printing surface or under teeth of cylinder. Starts press by turning crank or by pressing button to pass rollers over paper. Removes printed proof and examines proof for defects. Cleans press with solvents.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 4 5	1 9 0	2 0 Y

9512-188 REEL FEEDER (print. & pub.)

Mounts and splices rolls of paper (web) to depleted unit reels, to ensure continuous feed of paper to press during production:

Monitors paper requirements for each unit reel in press by observing indicator paste speed lights to determine when paper has been depleted, or receives instructions from press operator concerning mounting of new rolls. Cuts and removes vapour barriers from new roll, using knife. Loads roll onto trolley or push cart, using chain hoist or similar device. Moves and positions loaded trolley or cart to appropriate reel stand of press. Stops depleted unit reel by closing power supply switch on panel, and lifts and positions roll of paper onto reel stand or bar of feed mechanism, using overhead hoisting device. Secures reel housing attachments around roll of paper, using press tools. Hand splices paper from new roll to paper on depleted core, using paste or two-sided adhesive, or uses splicing machine to ensure adherence of continuous web. Adjusts paper tension and alignment settings to minimize breakage and synchronizes speed of new roll with operating reel, to ensure continuous feed to press. Restarts reel by activating controls on unit panel to initiate reel change and feed replenished paper supply to press. Maintains records concerning amount of paper used, roll numbers, weights, spoilage and waste. May assist press crew during make ready.

GED: 3 SVP: 3 PA: H 4 EC: I 5 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 5	1 3 9	2 Y

9512-190 SAMPLE-PRINTER, TEXTILES (textile)

Tends sample-printing press to print samples of fabric for new patterns and to check printing cylinders for damage incurred during storage:

Mounts and secures printing cylinder in sample machine brackets, using wrench. Turns handwheel to set impression of printing roller and machine. Fills colour box with colour paste, using dipper. Places doctor blade in position against cylinder. Inserts length of fabric through guides and take-up roller. Presses buttons to start and stop press. Removes printed fabric and examines to detect flaws in printing.

Maintains records of cylinders checked and flaws detected. Notifies supervisor of flaws detected.

GED: 3 SVP: 3 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> <u>4</u> <u>3</u> 4 <u>3</u> 5 5	1 3 9	0 Y

9512-194 PLATEN-PRESS TENDER (print. & pub.)

Tends platen press that prints information on materials such as paper, paperboard, or cloth, using one of the following methods:

Places stack of material in feed tray of automatic feeding mechanism, adjusting height of tray according to height of load. Adjusts guide bars and air pressure controls to regulate force of air in suction feed cups according to size and weight of material. Starts press and observes feeding operation. Removes printed material from discharge tray. Positions piece of material against gauge pins on press platen while press is operating and head is in upper position. Removes printed material and inserts new piece after press head descends and returns to upper position. Inks rollers, using knife.

GED: 2 SVP: 4 PA: L 4 EC: I 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> <u>4</u> 5 <u>4</u> <u>4</u> <u>4</u> 5 5	1 9	2 Y

9512-198 PAPER-FEEDER, PRESS (print. & pub.)

Feeds sheets of paper singly into printing press by hand or tends automatic feeding device by either of the following methods:

Stacks pile of paper on feed board of press. Starts press. Shifts single sheet by corner and pushes sheet against feed guides, one sheet for each rotation of cylinder. On automatically fed presses, stacks paper in elevator and adjusts side-guides, suction feed grippers and feeding-wheels by turning wing-nuts. Observes feeding operation to detect malfunctioning. Stops feeder on signal from pressman. Removes printed sheets from discharge board and stacks them on carts or pallets. May assist operator in making press ready.

GED: 2 SVP: 3 PA: M 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> <u>4</u> 5 <u>4</u> <u>4</u> <u>4</u> 5 5	1 3 9	2 3 Y

9512-202 LITHOGRAPHIC-PRESS FEEDER, SHEET METAL (metal stamp., press. & coat.; print. & pub.)

Feeds lithographic press used to print sheet metal:

Verifies pallet load tickets against production schedule to ensure that specified sheeting is used. Pushes pallet load of sheeting from roller platform onto feeder hoist. Adjusts feeder guides to width of sheeting, using hand wrenches. Raises load to feeding position on automatic press feeder by moving controls. Observes feeder in operation, stopping

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feeder to clear blockages or to remove defective plates. Cleans press rollers, press plates and ink fountain.

GED: 2 SVP: 3 PA: M 2 3 4 7 EC: I 5 6 DPT: 6 8 6

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 5 <u>4</u> 4 4 5 5	1 3 9	2 3 Y

9512-206 PRESS HELPER (print. & pub.)

Helps printing press crew during make ready, printing, and press washup operations, by performing any combination of the following duties:

Responds to verbal instructions of press crew to provide assistance during particular operation. Retrieves and carries inks and solvents to press, as directed. Cleans and purges ink fountains, trays or mixing pans used in printing presses. Moves cylinders, stock skids, printing stock and other materials to press, using hoist, lift truck, or handcart during make ready operations. Stacks and jogs sheets of paper into units of specified quantities prior to printing. Feeds paper into press, as directed. Removes and places printed stock on skids, or in stacks and wraps printed stock by hand. Operates fork lift truck to remove loaded skid from press area and deliver skid to shipping or binding. Places empty skid on floor near press. Cleans work area by removing cartons, cans, printed samples and other materials that may hinder production. Removes, cleans and files printing plates, ink pumps and other press parts and attachments. Returns inks, solvents and unused stock to designated storage areas. See also definition for term title, 02-160 HELPER (any ind.). May relieve press assistant during temporary absence from press.

GED: 2 SVP: 3 PA: H 2 4 EC: I 5 DPT: 6 6 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 5 <u>4</u> 4 4 5	1 9	3 Y

9512-299 OTHER PRINTING PRESS OCCUPATIONS

This residual group includes printing press occupations not presently classified in Unit Group 9512.

9513-STEREOTYPING AND ELECTROTYPEING OCCUPATIONS

This unit group includes occupations concerned with making printing plates and cylinders from moulds, matrices or dies on which type matter and designs have been embossed or impressed. Activities include: casting molten metal into matrices; depositing copper on matrices electrolytically and building up copper shells with molten metal; embossing mills from engraved dies; impressing cylinders from embossed mills; and moulding plastic and rubber into matrices.

9513-110 ELECTROTYPE (print. & pub.)

Fabricates and finishes duplicate electrotype printing plates from setup type:

Lays sheet of wax coated metal, plastic or lead on type and presses it in

hydraulic press to form mould. Removes mould from press and trims edges. Sprays mould with electro-conductive substance, using a spray gun, and immerses it in electroplating tank until metal shell of desired thickness has formed on mould. Peels shell from mould. Pours backing of molten metal on shell, using ladle or casting machine, and allows metal to cool and form plate. Removes excess metal from edges and back of plate, using power saw, shaving and milling machines. Examines plate with magnifier to detect imperfect formation of half-tone dots, lines, and type. Corrects defect, using engraver's hand tools. Mounts finished plates on wood or metal blocks for flatbed cylinder presses, using hammer, nails and bonding press, or curves plate for cylinder presses, using plate curving machine. Removes excess metal from nonprinting areas of plate surface, using radial routing machine. May operate proof press to obtain proof of plate reproduction and registration.

GED: 4 SVP: 7 PA: M 4 7 EC: I 5 6 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> 2 4 <u>2</u> 3 <u>2</u> 5 5	1 9	0 Y

9513-114 STEREOTYPER (print. & pub.)

Operates machines that form matrices from type and other relief printing surfaces, and casts stereotype plates in type metal:

Lays sheet of paper on form or plates, covers with moulding blanket and protective sheet, and in self-feeding rollers of matrix rolling machine or hydraulic press. Adjusts controls to regulate time, temperature and pressure required to form matrix. Cuts and pastes pieces of paper felt or cardboard in large printing areas of matrix to prevent collapse during casting of plate. Aligns and notches matrices with master matrix, using matching machine. Aligns notches with pins of trimming machine and pushes lever to rim three edges of matrix simultaneously. Lays matrices on casting box platen and arranges steel bars on three sides of mat to confine molten type metal. Pours metal into casting box, by hand or operates an automatic stereotype plate casting machine. Trims plates to specified size, using shaving machines, bumper, levelling machine and trim saw. May drill matching holes in series of mounted colour plates, using power hand drill, and insert pilot pins in base to register all plates to key plate. May register series of colour plates and mats by transparent acetate overlay process.

GED: 4 SVP: 7 PA: M 4 7 EC: I 6 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> 4 <u>3</u> 3 <u>3</u> 5 5	1 9	0 Y

9513-118 CYLINDER IMPRESSER OPERATOR (print. & pub.)

Operates impressing machine to transfer designs from mills (embossed rollers) to metal cylinders used for printing on cloth:

Positions blank printing cylinder on machine. Places truing roller in machine and lowers machine head until roller is in contact with cylinder. Presses button to start machine and rotate roller against cylinder. Turns setscrews to align head of machine with cylinder. Plots number of times design is to be repeated around cylinder and chalks division on adjustment wheel. Replaces truing roller with mill and aligns it for impressing. Lowers mill against surface cylinder. Starts machine and gradually increases pressure between roller and cylinder

as impression is made. Stops machine when impression of required depth is obtained. Moves roller to new position on cylinder face and repeats process to impress repeat design. Examines cylinder periodically to ensure that design is in register. Mounts impressed cylinder on mandrel of lathe and operates lathe to smooth and polish cylinder, using polishing stone. Repeats impressing and polishing procedures until specified depth and finish is obtained. Verifies depth, using depth gauge.

GED: 4 SVP: 7 PA: M 4 7 EC: I DPT: 4 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>3</u> 4 <u>3</u> <u>3</u> 5 5	1 9	0 Y

9513-122 PLATE FINISHER (print. & pub.)

Finishes electrotype or stereotype printing plates for mounting: Operates metal cutting tools such as, power saw, plate milling machine, shaving machine and routing machine to remove surplus backing from plate, shave and smooth plates to specified thickness, cut out printing from nonprinting areas, cut plates to size, and bevel edges. Sets plate on surface plate and taps with hammer and block to flatten. Rubs face of plate with finisher's rubber to determine low and high spots. Taps low spots with punches and hammer to raise and level them to printing height. Examines plates with magnifier to detect flaws in half-tone dots, and lines and raises, lowers, or repairs imperfections with engraver's hand tools. May mount finished plates on wood or metal blocks, using hammer and nails, or thermoplastic adhesive and heat press. May operate plate curving machine (slip roll forming machine) that curves plates to fit plate cylinder of rotary printing press.

GED: 4 SVP: 6 PA: M 4 7 EC: I 5 6 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>2</u> 4 <u>3</u> <u>3</u> 5 5	1 9	0 Y

9513-126 CLAMPER (print. & pub.)

Operates clamp (rotary press) to emboss designs on mills, used in impressing copper printing cylinders:

Positions die in fixtures and forces mill cylinder against die. Rotates die the same number of times design is to be repeated around circumference of mill. Examines embossing on mill and determines, from gap left between ends of embossing, reduction required in mill diameter. Starts machine that turns die against mill to emboss design on mill. Spreads grease mixture over surface of mill and gradually increases pressure on head of clamp as die turns against mill working grease away from area of mill corresponding to smooth portions of die. Removes mill from clamp and turns wheel to rotate mill on mandrel in acid bath to etch grease free area of mill. Repeats procedure until die works grease from entire surface of mill indicating that maximum embossing has been attained. Offsets head of clamp and works die against mill to round off end of design and to render cylinder ovate to facilitate impressing copper printing cylinder. Examines embossed mill through magnifying lens to verify sharpness of lines. Inserts mill in heat-treating pot, fills pot with carbon activated bone metal, and places pot in electric furnace. Turns thermostat to set temperature of furnace, according to type of steel. Removes mill from furnace at end

of heating cycle, using tongs and immerses it in brine for hardening and tempering, or quenches it in oil. Cleans mill with wire brush.

GED: 4 SVP: 6 PA: L 4 7 EC: I DPT: 4 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>3</u> 4 <u>3</u> <u>4</u> 3 4 5	1 9	0 Y

9513-130 PRINTING PLATE MOUNTER (print. & pub.)

Mounts and trims finished printing plates on wood, synthetic or metal blocks, and operates routing machine to remove excess metal from nonprinting areas of printing plates:

Places plates face up on flat metal surface, and taps with hammer to straighten out irregularities due to warping or bending. Cuts mounting block to size on power saw and fastens plate to block, using one of the following methods: Lays plate on adhesive coated block or inserts sheet of thermosetting bonding film between plate and block, and places assembly on sliding table of heat press. Places weights around assembly and covers with heat resistant blanket to prevent damage to plate. Adjusts controls to regulate temperature of press and pushes sliding table with plate into press cavity (oven). Depresses lever to apply pressure for specified time. Nails plate to block by hammering nails along bevelled edge of plate. Trims, squares and smooths edges of plates and reduces them to type high thickness, using trim saw and block planer. Adjusts gauges, guides and cutting blades of machines to produce specified cuts. Verifies dimensions of blocks and mounted plates, using squares and gauges. Cuts notches and mortices in mounted plates, using drill press and jig saw, to make openings for inserting type on other plates. Operates routing machine to cut excess metal from nonprinting areas of printing plates. May patch plates with solder, and sweat electrotypes to metal base, using electric soldering equipment. May patch electrotypes by putting adhesive aluminum foil on back of metal plate before mounting.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> <u>3</u> 5 <u>3</u> <u>4</u> 3 4 5	1 9	0 Y

9513-131 FLEXIBLE PRINTING PLATE MOUNTER (print. & pub.)

Mounts moulded or photographically exposed, flexible rubber or plastic printing plates on printing cylinders, and tests impression, prior to presswork:

Moves cylinder to work area and lifts cylinder into cradle of proofing machine, using overhead hoist. Tapes sheet of paper over upper cylinder of proofing machine. Presses adjustable marker onto paper and rotates upper cylinder, by hand, to mark paper with registration points to guide the positioning of flexible plates. Meshes gears of upper and lower cylinder, by manually turning gear handle. Applies two-sided adhesive tape around circumference of lower cylinder that will receive flexible plates. Aligns and positions flexible plate on adhesive, using image glass, to locate grid markings on paper as guide. Repeats procedure to align and secure remaining plates on plate cylinder. Inks mounted plates, using ink roller, to prepare for test impression. Rotates lower cylinder, by hand, to transfer impression from plate cylinder to upper paper cylinder. Inspects impression on paper to check registration and ensure plates are correctly aligned. Removes plate cylinder from cradle, using overhead hoist, and forwards cylinder to press area.

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May grind back of flexible plate, or add padding material to plate, as specified.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 4 4 5	1 9	0 Y

9513-134 BLOCKER, METAL BASE (print. & pub.)

Casts, trims, and bonds metal blocks to printing plates:

Fills melting pot of casting machine with bars of metal alloy and sets thermostatic control. Tightens clamps on casting box cover and raises casting box to vertical position. Depresses lever on melting pot to open pouring gate or ladles molten metal into honeycomb mould in casting box. Removes cast metal block from casting box after it has cooled and cuts to size, using trim saw. Planes surface of block to specified height, using planing machine. Cuts sheet of thermoplastic bond film to size. Inserts film between plate back and block, and places them on sliding table of heat press to bond them.

GED: 3 SVP: 5 PA: M 4 7 EC: I 3 6 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 5 3 4 4 4 5	1 9	2 0 Y

9513-138 PRINTING PLATE MOULDER (print. & pub.)

Operates heated hydraulic press to mould rubber or plastic printing plates:

Sets thermostat of press to specific temperature and turns valve or pulls switch to heat press. Mounts type chase or engraved metal plate in press. Places sheet of uncured thermoplastic material on typeface or surface of engraved plate and allows it to heat for prescribed time. Pulls lever to impress type or plate pattern into thermoplastic to form matrix. Peels matrix from type or plate. Places uncured soft rubber or plastic sheet on matrix and inserts assembly into press. Fits metal edge strips around perimeter of assembly to limit pressing depth and to determine plate thickness. Pulls lever to operate press to produce printing plate by pressing sheet material into matrix. Inspects printing plate for flaws and quality of impression. Grinds printing plate to uniform thickness, using grinding machine. Checks thickness of plate, using micrometer.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 3 4 3 4 4 5 5	1 9	0 Y

9513-142 ELECTROPLATING TANK TENDER (print. & pub.)

Tends electroplating tank that coats and plates engraved printing cylinders with layer of chrome or copper, to protect cylinders during printing:

Reads work order to determine requirements. Inspects cylinder for

flaws and cleans and degreases surface, using solvents and sponge, to prepare surface for bonding. Measures diameter of cylinder, using micrometer, to determine thickness of plating required. Compares measurements to standard tables to calculate time required for plating process. Immerses cylinder in plating tank containing either copper sulphate or liquid chromic acid, using electric hoist or with assistance of helper. Rotates cylinder in solution, manually or by operating rotating drum, and activates electroplating unit for specified period to deposit coat of chrome or copper residue on surface of cylinder. Removes cylinder from tank and washes cylinder with water. Examines surface, using magnifying scope, to ensure uniformity of deposit. Polishes surface of cylinder, using fine polishing paper, or forwards cylinder to finisher. Mixes and maintains level of plating solutions in tank.

GED: 3 SVP: 3 PA: M 4 7 EC: I 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 3 3 3 4 3 4 5	1 3 9	0 Y

9513-199 OTHER STEREOGRAPHY AND ELECTROGRAPHY OCCUPATIONS

This residual group includes stereotyping and electrotyping occupations not presently classified in Unit Group 9513.

9514-PRINTING/ENGRAVING, EXCEPT PHOTOENGRAVING OCCUPATIONS

This unit group includes occupations concerned with engraving and etching (by hand, machine or chemicals) plates, cylinders, dies, and blocks used in printing by hand blocking, letterpress, gravure and direct lithographic processes.

9514-110 ROLLER ENGRAVER (print. & pub.)

Engraves textile designs on steel rollers from which designs will be transferred to copper gravure printing cylinders: Measures length and width of one complete repetition of pattern, using ruler, and determines size to make roller, according to dimensions and circumference of copper printing cylinder, on which design will ultimately be reproduced. Operates power lathe to turn steel roller down to specified diameter. Measures design parts and computes machine settings required to reproduce vertical and horizontal straight line design on roller, using mathematical tables and formulae, and plots machine settings on graph paper. Mounts roller between chucks of index dividing machine and engages tracing carriage, stops, according to computations on graph paper. Lowers scribe in tracing carriage to surface of roller and moves levers, according to machine settings, to sketch vertical and horizontal lines around face of roller. Mounts scribed roller in fixture on worktable. Engraves around outline of sketch and cuts or stipples in ground lines, varying depth and width of delicate lines to create desired effect, using variety of engraving and stippling tools. Prints proof impression of engraved design on wax paper and compares proof with original. Mounts engraved roller on polishing lathe and operates lathe to finish surface. Punches indentations into ends of roller to facilitate alignment on mill during

impressing stage, using hammer and punch. Heats and tempers engraved roller to cure and perfect engraving design.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 2 3 5 5	1 9 0	0 Y

9514-112 ELECTRONIC ENGRAVER (print. & pub.)

Sets up and operates electronic engraving machine that automatically scans and engraves texts, borders, or images on printing cylinders: Assesses job factors such as, type of line screen to be used, the number of steps and repeats required, and the depth and size of walls to be etched, to determine machine settings. Sets up electronic engraver, by calculating and keying in numerical program codes on console keyboard, to automatically control the scanning and engraving of text or image. Selects and installs appropriate cutting styles for engraving, and loads and positions copy material on scanning drum. Loads and secures cylinder onto etching station of machine, using electric hoist or with assistance of helper. Activates machine and keys in final engraving instructions received from scanner. Observes and monitors automatic engraving to ensure accuracy and to correct any irregularities. Inspects quality of engraving, using magnifying lens, to ensure accuracy of text and image transfer. Unloads engraved cylinder from machine, using electric hoist or with assistance of helper, and forwards cylinder to finishing area.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 2 3 5 5	1 9 0	9 0 Y

9514-114 ENGRAVER, LETTER (print. & pub.)

Engraves and etches lettering and ornamental borders and designs on steel plates or dies, used in printing currency, securities, stamps and similar items:

Lightly marks boundary grid on plate or die, using stylus. Incribes mirror image of letters and designs on die, using steel point. Covers die with acid-resist and rules border lines, using diamond point. Paints out unwanted lines with acid-resistant varnish. Bathes die with acid to etch lettering and designs until sufficient bite (depth) is obtained. Engraves borders to correspond with lathe work, using graver and burin. Deletes boundary grid. May repair engravings on printing plates.

GED: 4 SVP: 7 PA: L 4 7 EC: I 7 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 2 5 3 2 3 5 5	1 9 0	0 Y

9514-115 AUTOMATED LETTER ENGRAVER (print. & pub.)

Operates computerized engraving machine that automatically engraves and etches lettering, borders and designs on metal printing plates:

Reviews work order to determine style, size and weight of letters to be engraved. Inserts appropriate computer program diskette into disk

drive mechanism. Selects cutting bit, according to size and depth of letters to be engraved, and mounts bit into holder, using hand tools. Aligns metal plate on cutting table and secures plate in place, by tightening vice grip. Keys in data to be engraved by reading work order instructions. Activates power controls on engraver cutter to automatically engrave letters on metal, as programmed. Monitors operation and repeats cutting process to achieve specified depth of engraving required. Releases vice grip and removes plate from cutter. Compares engraved metal plate against instructions to ensure specifications are met.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 2 4 3 2 3 5 5	1 9 0	0 Y

9514-118 ENGRAVER, PICTURE (print. & pub.)

Engraves ornamental, pictorial, and textual representations on steel plates or dies used in making gravure printing plates or cylinders for printing paper money, stamps and securities:

Traces pattern on plate or die or scribes it on gelatin sheet, using stylus. Dusters graphite powder into outline on gelatin and transfers outline to plate or die being engraved. Engraves lines, dots and dashes in positions, depths and sizes required to outline of design, using burin, graver and machine. Corrects error in engraving by scribing lines or dots omitted and by filling faulty scribing with metal.

GED: 4 SVP: 7 PA: L 4 7 EC: I 7 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 2 4 3 2 3 5 5	1 9 0	0 Y

9514-122 SIDEROGRAPHER (print. & pub.)

Transfers raised surfaces on dies to printing plates or cylinders by impression:

Cuts around raised surface on die to remove undesired areas, using graver and burin. Scribes grid on plate or cylinder with styli, dividers and gauge. Scrapes and burnishes plate or cylinder surface to remove imperfections, using, burin and burnisher. Aligns plate or cylinder in transfer press and positions die, using loupe, to ensure accurate alignment. Pulls lever to bring die surface into contact with that of plate or cylinder, and gradually increases pressure until it receives impression from die. Examines impression and repeats procedure until even impression of required depth is obtained.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 2 5 3 2 3 5 5	1 9 0	0 Y

9514-126 ENGRAVER, TEMPLATE (print. & pub.)

Inscribes and etches designs on zinc sheets to form templates for engraving printing cylinders by mechanical pantograph process: Studies design and production sheet to estimate the number of times design will be repeated around cylinder. Determines sketch size, and number of plates required to complete sketch. Lays out reference lines

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on design, using straightedge and pencil. Squares and rules reference lines on zinc plates, using dividers, straightedge, and diamond stylus. Places design under weighted door of camera lucida and moves camera along graduated scale to project image of specified dimensions. Places zinc plate on table beneath camera and aligns reference lines of projected image. Traces around outline of design, with stylus, allowing space between colours for slight spread of dyes, type of cloth to be printed and etching process. Paints back and edges of zinc plate with acid-resistant coating to prevent attack during etching process. Etches plate to deepen engraved lines by placing in acid bath for specified time. Washes etched plates, using water and brush. Records, on production sheet, number of times design will be repeated around cylinder, number and size of plates in design, and allowances between colours.

GED: 4 SVP: 7 PA: S 4 7 EC: I DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C	1 9 0	9 0 Y
3 3 4 3 2 5 3 2 3 5 4		

9514-130 ETCHER, GRAVURE (print. & pub.)

Etches designs on photographically prepared or pantographically engraved copper plated cylinders: Studies layout sheet to determine etching requirements such as, number of colours to be used, depth and wall specifications, and type and weight of material to be etched. Prepares and dilutes concentrated acids with water, according to formulae. Cleans cylinder prior to etching, using sponge and cleaning solution. Transfers cylinder to acid vat of etching machine, using electric hoist, and immerses cylinder in bath. Turns valve to release compressed air that agitates acid, or activates rubber rolling device that rotates and oscillates, to spread etching acid on cylinder. Starts machine to rotate immersed cylinder. Inspects etching periodically, by lifting cylinder from vat, using hoist and measuring depth of etch with gauge. Passes fingers over cylinder surface and scans etching, with magnifying scope, to detect processing defects such as, pinholes and collapsing ground lines. Re-immerses cylinder in vat as required and processes cylinder through series of acid baths to increase depth and width of etch. Scratches charcoal into etch to render lines visible and examines engraving to determine whether cylinder will print with desired effect. Transfers etched cylinder to cleaning vat, using hoist, and starts machine to spin roller in cleaning solution, and lowers brush to surface of rotating cylinder to remove acid-resistant coating.

GED: 4 SVP: 6 PA: H 4 7 EC: I 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C	1 9 0	0 Y
3 3 4 3 2 5 3 3 3 5 4		

9514-132 ETCHING CORRECTOR (print. & pub.)

Corrects etching imperfections on etched-printing cylinders using hand tools and chemicals: Moves and places etched cylinder into sink, using electric hoist or with assistance of helper. Examines surface of cylinder using magnifying scope to detect etching imperfections and determine the depth of etched cells in flawed areas. Stages correct areas of surface, using brush and lacquer, to protect them during acid re-etch. Re-etches

problem areas by rotating the cylinder and pouring acid over exposed areas for specified period. Washes surface with water to remove acid. Deepens etched-indentations using special etching hand tools, according to specifications. Eliminates cylinder high spots by manually polishing down areas, using fine burnishing paper or by building-up over-etched areas by pouring in lacquer. Fills in deep flaws with lead slivers, if required. Washes cylinder using mixture of water and pumice powder in preparation for plating.

GED: 4 SVP: 6 PA: H 4 7 EC: I 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C	1 9 0	0 Y
3 3 4 3 2 5 3 3 3 5 5		

9514-134 PANTOGRAPH SETTER (print. & pub.)

Sets up pantograph machines to transfer designs in reduced form from metal plates to printing cylinders: Inserts mandrel through roller and lifts cylinder onto headstocks on machine carriage, using electric hoist. Aligns centre line on zinc plate with centre line on machine table and tucks plate to table. Sets dimension levers in position to reduce design to specified scale by moving tracing arm through series of reference points on zinc plate, and moving levers until register stud fits into appropriate slot on register wheel. Tightens levers in position, using hand tools. Positions diamond points on machine cross bar, moves tracing arm through reference point on zinc plate, and depresses pedal, to mark corresponding marks on varnished cylinder. Aligns succeeding diamond points with marks on cylinder. Repeats procedure until diamond points have been spaced on cross bar for each side repeat of pattern. Tightens diamond points in position, using pliers. Turns thumbscrew on diamond frame (holder) to raise diamond points equal distance from cylinder. Weighs diamond points with miniature scales and adds or subtracts washers to compensate for difference in weight. Moves tracing arm through series of reference points on zinc plate, depresses pedal to mark corresponding crosses on cylinder, and examines marks on cylinder to verify alignment of diamond points. Determines ground setting according to weight of fabric, type of design, and colours in design. Records ground setting, length of roller, width of engraving and circumference of roller on production sheet.

GED: 4 SVP: 6 PA: M 4 7 EC: I DPT: 3 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C	1 9	0 Y
3 3 4 3 2 4 3 3 3 4 4		

9514-138 FLEXIBLE-PLATE ENGRAVER, HAND (print. & pub.)

Prepares rubber or plastic plates used in printing designs and lettering on fabric or other materials: Cuts strip of engraving gum (two-or three-ply rubber, or plastic cemented to cloth backing) from roll, using knife. Positions design over strip and transfers outline, by pressing design to surface of strip or by tracing outline or lettering, using drawing tools. Cuts around outline with knife to specified ply-depth and pulls background rubber from strip leaving raised design or lettering. Prepares separate plates for each colour in pattern. Punches registration hole on sides of plates for use in aligning and securing them to press. May draw and colour

designs and lettering on drawing paper, by following original sketch, for transfer to strip of engraving gum.

GED: 3 SVP: 5 PA: S 4 7 EC: I DPT: 5 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 5 3 3 3 5 4	1 9	0 Y

9514-142 PANTOGRAPHER (print. & pub.)

Operates pantograph machine to transfer design in reduced form from metal plate to printing cylinders: Verifies machine set-up by moving stylus on tracing carriage through series of reference points on zinc plate and observing alignment with marks on cylinder. Sets ground point into slot on ground wheel according to design sheet instructions. Locks tracing carriage in position for inscribing ground lines on surface of cylinder. Rotates ground wheel to advance tracing carriage uniform distance, depresses pedal to lower diamond points to cylinder surface, and moves stylus back and forth within outline on zinc plate to inscribe oblique ground lines on cylinder. Releases tracing carriage and guides stylus around outline on zinc plate to transfer outline to cylinder. Engages register point in appropriate slot on register wheel and adjusts dimension levers with hand tools to set-up machine for inscribing subsequent repeats of pattern around circumference of cylinder. Transfers portions of design represented by different colours onto separate cylinders. Paints over pinholes, scratches and reference points left on cylinders during machine set up, using brush and acid resistant paint. Marks register point, colour and cylinder number on end of cylinder, using hammer and punch. Paints zinc plate with number of colours in design, using fine brush and watercolours.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 5 3 3 3 4 3	1 9	0 Y

9514-144 CYLINDER PREPARER (print. & pub.; mach., weld. & forg.)

Operates a variety of metal working machines to turn down and polish copper printing cylinders to specified dimensions, prior to etching: Reads work sheets to determine size and diameter of cylinder required. Selects cylinder from inventory and moves cylinder to work area using hoist and handcart. Measures diameter of cylinder using micrometer to calculate depth of cut required. Examines surface of cylinder for flaws using magnifying scope, to ensure surface can be etched. Loads cylinder onto power lathe using hoist or with assistance of helper, and locks cylinder into place. Selects and installs diamond-tipped stylus or carbony tip in tool holder. Starts lathe and guides cutting tool across the length of cylinder to cut cylinder to required diameter. Stops lathe and measures diameter using micrometer, to ensure cylinder is not overcut. Removes cylinder from lathe once cylinder is near specified diameter and loads cylinder onto polishing machine. Starts polisher and grinds and polishes cylinder to required size by guiding coarse

stone over length of surface. Measures diameter of cylinder and finishes to required size, using polishing stone. Removes cylinder from polishing machine and forwards cylinder to etching area.

GED: 3 SVP: 5 PA: M 4 7 EC: I 5 6 DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 5 3 4 3 5 5	1 9	0 Y

9514-146 PRINT-ROLLER REPAIRER (print. & pub.)

Examines and rectifies faults in new and used metal and wooden wallpaper-printing rollers:

Examines freshly routed aluminum rollers to ensure that printing surface of each corresponds with its related colour in the original wallpaper design. Marks imperfections with felt-tip pen. Returns rollers requiring additional routing to routers. Plugs surface of incorrectly routed rollers with metal, using drill. Mounts and refaces worn printing rollers, using lathe and cutting tools. Traces design on wooden rollers. Incises separate roller for each colour of a multicolour pattern, using wood-carving tools. Cuts and bends metal strips to conform to contours of design, using hand tool, and forces strips into incisions in rollers to provide raised printing surface.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 5 3 4 3 5 4	1 9	0 Y

9514-150 STAGER (print. & pub.)

Paints acid-resistant coating over specified areas of gravure printing cylinder, at progressive stages of production, to control etching in acid bath:

Stages out pinholes, scratches and other imperfections on cylinder with acid-resistant coating, using brushes. Paints over portions of etched surface to inhibit deeper etching and to obtain desired tonal values, in those areas, when cylinder is immersed in acid bath. Repeats process between progressive etching stages. Sets coating by directing flow of hot air over cylinder using portable dryer, or by moving cylinder to temporary storage area.

GED: 3 SVP: 3 PA: S 4 7 EC: I 7 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 5 4 4 4 5 5	1 9 3	0 2 Y

9514-199 OTHER PRINTING/ENGRAVING OCCUPATIONS, EXCEPT PHOTOENGRAVING

This residual group includes printing/engraving occupations, except photoengraving, not presently classified in Unit Group 9514.

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9515-PHOTOENGRAVING AND RELATED OCCUPATIONS

This unit group includes occupations concerned with preparing metal, plastic or paper printing plates or cylinders for photogravure processes, mounting and photographing copy, developing latent images on plates, and etching plates to leave raised or incised printing surfaces. Includes occupations concerned with the making of printing plates by electrostatic processes. Production engravers and etchers are classified in Unit Group 8391, ENGRAVERS, ETCHERS AND RELATED OCCUPATIONS. Artistic engravers and etchers are classified in Unit Group 3311, PAINTERS, SCULPTORS AND RELATED ARTISTS.

9515-110 PHOTOENGRAVING PLATE FINISHER (print. & pub.)

Routs, re-etches, or intensifies designs to improve or repair photoengraved metal printing plates: Reads work order to determine style and finish desired and studies original copy for colour tone qualities. Applies powder to engraved surface, wipes off excess and examines engraved plate under magnifying glass to detect damaged half-tone dots or type, and to evaluate quality of etching against original copy. Touches up irregularities in etched plate, using hand cutting tools. Routs and cuts away metal, not completely removed by acid, during etching. Blocks up plate by nailing it to wooden blocks to attain desired level for printing. Examines finished plate and compares to original copy. Forwards plate to proof printer. May rework plate further if duplication is not satisfactory.

GED: 4 SVP: 8 PA: L 4 7 EC: I DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>2</u> <u>4</u> <u>3</u> <u>2</u> <u>3</u> <u>5</u> <u>3</u>	9 1	0 Y

9515-114 SCANNING MACHINE OPERATOR, COLOUR CORRECTIONS (print. & pub.)

Operates electronic scanning machine to colour correct screened colour separations used in photoengraving printing plates and cylinders: Mounts overlays of one-colour transparencies on scanning device. Studies light and shade and colour fidelity. Identifies areas requiring correction and circles areas with coloured pencil. Reads co-ordinates of scanning device to identify location of marked areas. Sets machine on co-ordinates and positions scanner head over areas to be corrected. Places developed colour separation film over unexposed film in scanner and activates machine. Watches oscilloscope to determine density of local area of separation and adjusts scanner panel controls to decrease or increase density, using knowledge of printing techniques, materials and effects of colour combination. Positions scanner head over co-ordinates of next area to be treated and repeats procedures until film is completely corrected. Removes films from scanner and processes undeveloped film in automatic developer. May correct colour on colour separated negatives or positives by immersing the film in chemical

solution for specified period, or by altering specific portions of film using fine etching brush.

GED: 4 SVP: 7 PA: L 3 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>2</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>5</u> <u>2</u>	9 1	0 Y

9515-118 SCANNING MACHINE OPERATOR, COLOUR SEPARATIONS (print. & pub.)

Operates electronic scanning machine to make screened colour separations, from colour copy or transparencies, for use in preparing printing plates or cylinders:

Studies colour copy or transparency to determine preparation procedure. Places copy under scanning head of machine and places plastic coated foil under incising head. Presses switch to create vacuum to hold copy in position. Selects first primary colour for separation and manipulates scanning head and console controls to establish hue. Adjusts console controls to make half-tone screen and to intensify or reduce density to obtain desired tint or shade. Turns hand wheels to position scanning head. Switches on scanning machine to complete exposure. Repeats operation for each primary colour and black, identifying separation by scribing colour in corner of foil. Scribes registration marks on four sides of foil. Makes and develops contact negative for each colour separation. Completes production sheets and places negatives in envelope for removal to plate making area.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>2</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>5</u> <u>2</u>	9 1	0 Y

9515-119 LASER BEAM COLOUR SCANNER OPERATOR (print. & pub.)

Operates computerized, laser beam colour scanning machine to enlarge and screen film separations used to make printing plates:

Measures original colour transparency or negative to determine size of area to be reproduced. Calculates machine readings for enlargements, using area measurements, by reading work order instructions, and by consulting computer conversion tables. Cleans and mounts scanner drum and head on scanning machine, according to reproduction scale desired. Positions and secures transparency or original copy on scanning drum, using transparent adhesive tape. Studies original to analyze colour density, highlights, middle tones and shadows, and adjusts colour controls on computer to obtain desired results. Loads preprogrammed tape into computer and types in reproduction commands on keyboard to set up system in accordance with job specifications. Loads film into film holder, places holder in exposing chamber and activates vacuum system, to secure film squarely on drum. Activates scanner and monitors scanning cycle. Removes and develops exposed film in automatic developer. Inspects developed film, using magnifying glass and scope, to ensure specifications are met.

Makes required adjustments to scanner and repeats process until desired quality is attained.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 2	9 1	0 Y

9515-122 PLATE-MAKER PHOTOENGRAVING (print. & pub.)

Sensitizes and photographically exposes metal or plastic printing plates in preparation for etching and finishing:

Mixes chemicals, using warm water, graduated vessels, stirrers and thermometers to prepare plate-making solutions such as, photosensitizers, developers, counter etch, etches, gums and lacquers, according to specifications. Cleans metal plate with acid solution, abrasives, and water and brushes to remove oxide. Coats plate surface evenly with sensitizer using whirler disk, or feeds plate through coating machine, and dries plate. Aligns diapositive or negative over sensitized plate and positions them in vacuum frame of exposing table. Exhausts air from frame using hand pump, to ensure perfect contact. Transfers latent image to plate by exposing vacuum frame to intense light source for specified period. Places plate in developing solution, or feeds plate through automatic processor and dryer to seal and preserve image onto plate. Washes plate with water and cleans plate, using pressurized pumice powder air brush, to remove soluble coating material or baked on foreign matter. Rewashes plate and applies lacquers, etches and gum. Forwards plate to press room. May cut plates to size on guillotine.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 6 7 DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 4	9 1	0 Y

9515-124 PHOTOPOLYMER PLATEMAKER (print. & pub.)

Operates camera equipment that photographically exposes photopolymer printing plates in preparation for printing:

Inspects negatives for imperfections and aligns negative on glass table of vacuum frame. Covers negative with protective sheet, and ensures perfect contact and seal by activating vacuum pump to remove oxygen from frame. Slides resin carriage across surface to cover protective sheet with resin coat and deposit mylar sheet onto resin. Lowers and locks vacuum lid onto surface to allow materials to press together and settle for specified period. Exposes materials to upper and lower ultraviolet light sources, for specified duration, to cure resin and fix image onto cured resin plate. Unlocks and lifts vacuum lid, and peels off covering materials, by hand to reveal exposed plate. Washes plate in washout machine to remove non-image areas and dries plate in mild stream of air. Immerses plate in acid bath that exposes plate to intense light source to harden type. Rinses plate with water to remove acids, and inspects plate for uniform thickness and other specified requirements.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 6 7 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 4	9 1	0 Y

9515-126 CAMERA OPERATOR, PHOTOGRAVURE (print. & pub.)

Sets up and operates camera to photograph drawings, photographs or text to produce film negatives for transfer to printing plates or cylinders:

Mounts and aligns material to be photographed on copy board holder. Studies work order and copy to determine photographic techniques required to transfer desired effect onto film. Adjusts camera to enlarge or reduce size of copy, according to specifications. Focuses lens and adjusts camera settings to compensate for distortions in copy. Inserts filters over lens, as required, to eliminate unwanted areas or to obtain colour separations. Positions film on vacuum board, and closes and locks board against back of camera. Selects and inserts screen over film in camera to obtain half-tones. Adjusts lights to attain even illumination. Sets and releases shutter mechanism to expose film to copy for specified period. Removes and develops exposed film in automatic processor, or by hand immersing film in chemical solutions. Compares developed film with copy and checks film with densitometer, to verify desired effect. Forwards film to stripping.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 2	9 1	0 Y

9515-128 COLOUR SEPARATION CAMERA OPERATOR (print. & pub.)

Sets up and operates camera to produce colour separation negatives for use in preparing printing plates:

Mounts photograph or art work copy on vacuum copy board. Closes glass frame and activates vacuum to hold copy in position. Computes lens and copy board settings for same size, enlarged and reduced negatives. Obtains optimum contrast range by focussing cross ruled glass screen, or controls contrast range, using screen and filter. Adjusts lights and photographs each separate colour in copy by adjusting colour filters, to isolate and produce four separate negatives. Inserts each negative into automatic processor to obtain positive transparency for each colour. Forwards completed separations to stripping for registration.

GED: 4 SVP: 7 PA: L 4 7 EC: 1 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 2	9 1	0 Y

9515-130 CONTACT PRINTER (print. & pub.)

Produces diapositives, negatives and colour separations for use in transferring illustrations or designs to printing plates or cylinders:

Studies original illustration or design and order sheet to determine intensity and length of exposure, and screen size needed to break up tones and shadings, according to colours in design and etching requirements. Mounts negative over film in contact frame and starts pump that creates vacuum in frame, and presses negative against film. Exposes film to light through negative, to transfer image from negative to film, producing diapositive. Removes exposed film from frame, and develops, fixes and rinses it. Lays positive over film in contact frame and exposes it to light, replaces positive with appropriate screen, and re-exposes film to light to produce screened positive. Develops, fixes

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and rinses screened positive. Examines film for correct exposure. Agitates dark film in chemical solution to reduce contrast or discards under exposed film. Hangs developed film on line to dry. Selects filters, rotates screen to applicable angle, and exposes to light for set period to produce colour separations. Marks or punches register points on screened films, using straightedge, triangle, and scribe.

GED: 4 SVP: 7 PA: L 4 7 EC: I 4 6 7 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 4 4 5 2	9 1	0 Y

9515-134 ETCHER, PHOTOENGRAVING (print. & pub.)

Etches metal photosensitized printing plates to remove metal from nonprinting areas, according to copy:

Mixes acid and caustic alkali etching solutions required to etch zinc, magnesium or copper printing plates. Brushes etch resistant powder on back and sides of non-treated plate. Mounts plate in etching machine and starts machine that sprays etching solution against plate to erode non-coated areas. Removes plate from machine before solution erodes printing area. Washes and dries plate. Brushes acid-resisting powder over printing area and bakes over heater. Returns plate to machine for second etch. Re-coats and re-etches until desired depth of etch is attained. Measures depth with gauge. Scrubs etched plate with solution to remove photographic image and baked etch resistant powder. Rinses and wipes dry plate or dries over heater.

GED: 3 SVP: 7 PA: L 4 7 EC: I DPT: 3 3 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 3 4 3 4 4 5 4	9 1	0 Y

9515-138 STRIPPER LAYOUTER (print. & pub.)

Mounts or mortises component negatives and diapositives on, or into sheets of opaque paper, transparent acetate or film to produce flats for photoengraving printing plates or cylinders:

Studies work order and reviews dummy to determine desired layout. Places base layout sheet on light-table. Calculates, and plots registration points and reference line using rules, squares, pencil and stylus, to ensure accurate registration. Locates negative or diapositive components and cuts out corresponding areas from base, using scalpel type knife. Positions and fastens components into place, using adhesive tape. Examines components for flaws and brushes on opaques or special fluids to retouch imperfections, as required. Prepares flats for each colour to be printed, if required for colour separation. Aligns flats in colour sequence and fixes flats together. Strips out unwanted film by close cropping background from original film, using airbrush and opaque paint. May make veloxes, vandykes or diazo proofs from flats.

GED: 3 SVP: 7 PA: L 4 7 EC: I DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 2 4 3 3 3 5 3	9 1	0 Y

9515-140 PROOFMAKER (print. & pub.)

Exposes assembled flats to light sensitive proving material, to produce finished photographic proofs that adhere to layout and page sequence specifications, prior to platemaking:

Cuts sheet of light sensitive proving material to required size and punches register holes on sheet, using hand punch. Mounts material onto vacuum frame, aligning holes to register pins, to secure material. Positions assembled flat over material and closes glass lid. Activates vacuum system to press materials together. Sets exposure timing device to required setting. Activates intense light source to expose flat to proving material and transfer image. Opens vacuum frame and separates proving material from flat. Places proving material in sink and washes proof with water spray to remove unexposed chemical residues. Dries and assembles proof into specified finished form. Forwards proof for examination and approval. May specialize in preparing different types of proofs and be designated accordingly.

GED: 3 SVP: 6 PA: L 4 7 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 3 4 3 4 4 5 4	9 1	0 Y

9515-142 TRACER TRANSFERRER (print. & pub.)

Prepares tracings of design on transparent plastic sheets and photoetches design on surface of printing cylinders in preparation for engraving:

Studies design and determines dimensions, position of pattern join, and number of tracings and printing cylinders required. Tapes transparent plastic sheet on drafting table and draws in datum lines, using drafting pen and etching ink. Overlays and aligns plastic sheet on design. Traces design outline for each specific colour, using drafting pen and etching ink. Repeats procedure to produce required number of tracings. Selects printing cylinder with circumference equal to length of design. Coats surface with white paint, using brush, and dries in dust-free area. Coats painted surface with photo-sensitive solution and places in drying area. Wraps tracing around cylinder, places on revolving mandrel and exposes surface to specified light source. Applies developing solution to cylinder surface and rinses in water. Repeats photo-etching procedure on required number of cylinders. Fills in solid printing areas of design on cylinder surface, using felt-tip pen and coloured ink to indicate area for routing. May specialize in tracings for lithographic or gravure printing.

GED: 4 SVP: 6 PA: L 4 7 EC: I DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 3 3 3 5 4	9 1	0 Y

9515-146 RETOUCHER, PHOTOENGRAVING (print. & pub.)

Retouches film negatives and diapositives, photographically reproduced from artwork, to correct defects and tonal accuracy prior to photoengraving:

Places negatives and diapositives over light table and compares them with artwork to detect processing faults, such as pin-holes, spots, loss of detail and inaccurate tonal values. Retouches negatives and diapositives by brushing opaques solution over them to blockout bare spots and scratches. Inscribes lines and dots to sharpen outline, using

stylus. Outlines half-tones where the background is to be eliminated. Paints in lines and dots to sharpen outline and detail, using brush or pen. Reduces colour strength following wet etching process or increases colour strength following dry etching process. Corrects imperfections in characters and in other image areas.

GED: 3 SVP: 7 PA: S 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 2 4 <u>3</u> 3 3 5 2	9 1	0 Y

9515-150 STRIPPER (print. & pub.)

Strips developed photographic emulsion from film-, glass-, or paper-backing and transfers it, in reversed position (mirror image), to glass plate for use in photoengraving printing plates or cylinders:

Reads work order to determine treatment of negatives or diapositives. Cleans glass transfer plate with pumice powder and dilute acid or alkaline solutions, and rinses with water. Soaks negative or diapositive lightly in lukewarm water to lift emulsion from backing. Takes emulsion from water and positions on wet transfer plate. Squeegees or blots emulsion to obtain good contact, to remove excess water and release trapped air. Applies special adhesive with small brushes to prevent emulsion lifting from plate. Dries plate in heated cabinet. When preparing colour or combination plates (line and half-tone), cuts and positions disparate emulsions on plate, using knife, straightedge, french curves and pale blue acetate overlays. Covers pin-holes and unwanted areas with opaque paint, using artist's brush.

GED: 3 SVP: 7 PA: L 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>4</u> 2 4 <u>3</u> 3 3 5 4	9 1	0 Y

9515-154 BRIGHT TYPE PROCESSOR (print. & pub.)

Prepares and photographs type and engravings to produce film used in photo-engraving printing plates:

Positions form on metal table top. Burnishes type with pumice and blows dust off with air hose. Sprays form with lamp black and polishes typeface, using rubber eraser and air hose. Clamps form in position on hinged camera table, using template and masks background with opaque paper. Raises table to vertical position, loads pre-set camera with film, adjusts lighting and photographs prepared form. Processes film in chemical solution and water. Places film on light table and inspects for defects. Opaques pin-holes and other defects using opaquaing solution and artist's brush. Positions film on drying racks.

GED: 3 SVP: 6 PA: L 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>4</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	9 1	0 Y

9515-158 STEP AND REPEAT MACHINE OPERATOR (print. & pub.)

Operates step and repeat machine to repeat designs or text on film, sensitized paper or printing plates used in photoengraving:

Reads work order and calculates machine settings required to repeat

image, using formulae and computation tables. Mounts diapositive or negative, on backboard of frame, aligning centrelines and tapes into position. Masks area surrounding diapositive or negative with black paper. Centres metal printing plate, sensitized paper, or film on horizontal table of machine and locks in frame. Positions frame for exposure of first repeat of image. Seals frame and backboard by creating vacuum using exhaust pump. Sets automatic timer to expose frame to light through diapositive or negative to produce latent image. Repeats process until image has been repeated the required number of times. Removes exposed material from machine and processes material, manually, by immersing material through a series of chemical baths, or by feeding material through automatic processor. Examines processed material for imperfections and misalignment of repeated designs. May operate automatic step and repeat machine guided by preprogrammed tape or computer program.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 4 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>4</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	9 1	0 Y

9515-162 ELECTROSTATIC CAMERA OPERATOR (print. & pub.)

Operates electrostatic camera to process master sheets used in offset-litho printing:

Places selenium plate in gausing machine to induce static charge. Removes plate in shield, avoiding exposure to light, and slides it into camera back. Places copy to be photographed in glass frame in front of camera, and adjusts control to position camera for enlarging or reducing latent image on plate. Switches on flood lights to illuminate copy, sets exposure on camera and actuates shutter to expose plate to light. Removes plate in shield and places it in light-tight tray containing special powder of opposite polarity to plate. Swivels plate to cascade powder over plate surface where it is attracted to latent electrostatic image. Removes plate and juxtaposes it with master sheet of identical polarity to transfer powder-image to master. Separates master from plate. Adjusts thermostat on fusing cabinet and inserts master to fuse image.

GED: 3 SVP: 5 PA: L 4 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>4</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	9 1	0 Y

9515-164 PAPER PLATE-MAKER (print. & pub.)

Operates automatic paper plate-making machine that processes camera-ready copy and illustrations to make paper printing plates:

Reads work order and inspects artwork positives to determine job requirements. Cleans glass lid of copy board with damp cloth. Aligns artwork on template and places stock positives over artwork. Covers undesirable parts of positive material by placing non-photosensitive paper over plates. Opens lid of copy board and loads and positions template. Closes lid and activates machine to expose film to artwork. Removes template and returns artwork to file. Removes paper plate from processor and fashions holes in paper, using hand held punch, to provide grip for printing press. Strips excess edge off plate to reduce it to required size. Inspects paper plate for voids and opaques, to ensure

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clean copy can be reproduced from plate. Forwards plates in batch to pressroom for printing.

GED: 3 SVP: 5 PA: L 4 7 EC: I 4 6 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	9 1	0 Y

9515-166 CARBON TISSUE TRANSFERRER (print. & pub.)

Sensitizes and photographically exposes carbon tissue, and transfers latent image to gravure-printing cylinders:

Prepares specified solution according to formula and sensitizes carbon tissue by immersing it in solution. Lays photosensitized tissue over diapositive of cross-ruled sheet, positions them in printing frame and exposes frame to intense light for prescribed period. Replaces screen with material to be reproduced and re-exposes frame to light source for specified period. Removes and trims tissue to size, wrapping tissue gelatin side down around printing cylinder and moistens it with water. Peels off tissue, leaving gelatin coating, bearing latent image, on cylinder. May directly develop image onto prepared cylinder by rotating cylinder in sink and pouring chemical developer onto cylinder.

GED: 3 SVP: 5 PA: M 4 7 EC: I 4 6 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>4</u> 4 <u>3</u> 4 <u>4</u> 5 4	9 1	0 Y

9515-170 PHOTO STENCIL MAKER (any ind.)

Produces photo stencils used in screen printing by preparing screen material and impressing image onto material, using photographic methods:

Selects silkscreen material of the required mesh and size, according to job specifications. Prepares and mixes photosensitive emulsion solution, according to formula. Pours solution into coating bar and coats screen with layer of photosensitive emulsion. Dries screen by placing it in front of fan. Applies second coat of solution, using bar, and re-dries screen to prepare screen material for exposure. Lays photosensitized screen material onto ledge of vacuum frame. Aligns and tapes film positive onto screen, locks vacuum frame, and activates vacuum pump to seal them together. Exposes screen material and film positive to intense light source, by pressing button, to imprint photosensitized material with image from film positive. Removes screen from vacuum table, detaches film positive and places screen in sink. Washes out screen, with water from hose, to rinse off excess photosensitive emulsion solution. Stacks screen to dry.

GED: 3 SVP: 5 PA: M 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>3</u> 4 <u>3</u> 4 <u>4</u> 5 4	9 1	0 Y

9515-171 NEGATIVE MERGER (print. & pub.)

Operates film exposing unit to merge negative film sections onto one film plate, to prepare printing plates or cylinders:

Reviews work order to determine exposure and processing requirements. Mounts and aligns single negative over film in contact frame.

Activates pump that creates vacuum in frame, to press negative against film. Depresses shutter control to expose film to light through negative, for specified period, to transfer image from negative to film. Repeats exposure process, burning images from remaining negatives onto same film, to combine all sections onto one film plate. Feeds exposed film through automatic processor to develop, fix, wash and dry contact negative film. Forwards completed contact film to platemaking area.

GED: 3 SVP: 4 PA: L 4 7 EC: I 4 6 7 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 <u>3</u> 4 <u>4</u> 4 5 3	9 1 3	0 Y 2

9515-172 NEWSPAPER PAGE MAKE UP ASSISTANT (print. & pub.)

Makes up newspaper pages by pasting-up typeset advertising and editorial copy to create a composite for making printing plates. Reviews page layout plan (dummy), and checks typeset copy and photographs to determine the composition of newspaper page. Proofreads photocopies of all copy and artwork and returns copy for corrections, if required. Waxes the back of copy and artwork by feeding material through waxing machine or using hand roller, to ensure material adheres to surface of flat. Trims copy and artwork to required size, using knife. Aligns and pastes-up material onto flat, according to layout plan. Ensures pages correspond to dummies by checking dummy makeup and comparing prepared flat to instructions. Photocopies composed pages for approval and forwards approved flat to camera department.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 <u>3</u> 3 <u>3</u> 4 <u>4</u> 5 4	9 1	0 Y

9515-174 PLATE GRAINER (metal stamp., press. & coat.; print. & pub.)

Tends graining machine to roughen surface of flexible metal sheets for use as lithographic printing plates. Fastens smooth metal sheets in clamps of graining machine. Pours granulated quartz or other abrasives, and steel balls onto sheet surface. Starts machine oscillating for period determined by considering thickness and size of sheet, and depth of grain desired. Stops machine and tilts it, using pneumatic jack, to return balls to hopper. Rinses off abrasives and sludge from sheet, using sponge and water hose. Hangs sheets on hooks in small drying oven. Examines plate with loupe for uniformity, size and structure of grain. May operate power shear to cut sheet metal to size. May roll out and hammer used plates to remove dents and bent corners. May lubricate machine and replace worn bearings.

GED: 2 SVP: 4 PA: L 3 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 5 <u>4</u> 4 5 5	1 3 9	2 0

9515-178 PRINT TRANSFERRER (print. & pub.)

Transfers design images from master film to copper printing cylinders, using one of the following methods:

Marks precise register points on end of cylinders, using straightedge and scribe. Inserts mandrel through cylinder and lifts cylinder onto brackets of sensitizing machine, using hoist. Starts machine that rotates cylinder. Turns valve to spray cylinder with water, and cleans it, using cloth, solvent and abrasive. Dries cylinder with paper towel. Fills spray gun with sensitizing solution and turns valve to spray solution on rotating cylinder. Transfers sensitized cylinder to copy machine, using electric hoist. Positions master film over cylinder and aligns register points on film with register points on cylinder. Covers master film with sheet of transparent film and engages end of transparent film in machine drive. Masks master film, using tape. Lifts high-intensity light frame into position over cylinder and starts machine that rotates sensitized cylinder and film one complete revolution, exposing sensitized cylinder to images on film. Transfers exposed cylinder to warm water developing bath, using electric hoist. Turns roller in developer to dissolve coating from areas of cylinder that were exposed to light through film. Inspects process to ensure complete developing. Transfers developed cylinder to methyl-violet dye bath and turns cylinder in bath to dye unexposed area of cylinder. Transfers dyed cylinder to wash vat and rinses excess dye from cylinder. Dries roller with cloth.

GED: 3 SVP: 4 PA: M 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 5 4 4 4 3 4 4 4 5	9 1 3	0 Y

9515-199 OTHER PHOTOENGRAVING AND RELATED OCCUPATIONS

This residual group includes photoengraving and related occupations not presently classified in Unit Group 9515.

9517-BOOKBINDING AND RELATED OCCUPATIONS

This unit group includes occupations concerned with binding books, pamphlets, business forms and other printed matter by hand and machine. Activities include: folding, gathering and collating signatures; sewing or stapling gathered signatures to form book bodies; pressing, trimming and reinforcing book bodies; fabricating and affixing covers; applying decorations and lettering to bound books; and assembling calendars, maps and charts.

9517-110 BOOKBINDER, HAND (print. & pub.)

Binds and finishes books, collections of documents and series of periodicals, performing most tasks by hand:

Folds printed sheets to form signatures (sections of pages) and gathers signatures into numerical order. Sews signatures together to form book body, by hand or using sewing machine. Compresses sewn signatures in hand press to reduce book to required thickness. Trims edges of book to size on hand cutter. Inserts book body in backer to form back edge into convex shape and to form grooves for cover. Applies glue to back and attaches cloth backing and head band. Cuts binder board to

size for covers, using shears of hand cutter. Cuts, fits and glues specified covering, such as leather or cloth, to binder board. Glues outside end sheet to cover. Places bound book in press to exert pressure on cover until glue dries. Applies colour to edges of pages, using brush, pad or atomizer. Embosses designs and titles on covers and decorates book covers with gold or silver leaf or metallic foil, using heated hand tools and stamping machine. May specialize in repairing and restoring old books by reinforcing deteriorated portions, sewing and gluing sections together, and by replacing liners, pages and covers.

GED: 4 SVP: 8 PA: L 4 7 EC: I DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 3 3 3 5 4	1 3 9 0	0 Y

9517-114 CASING IN, LINE SETUP OPERATOR (print. & pub.)

Sets up and operates machines that automatically perform in sequence such operations as, rounding and backing, lining, casing in, and pressing to convert gathered signatures (sections of pages) into finished books:

Mounts rolls of cloth, paper lining and head bands on machine spindles. Fills glue pot and adjusts flow of glue. Installs and adjusts feed guides, holding clamps, rollers, rounding forms and other machine parts to accommodate specified book size, using measuring instruments and hand tools. Turns hand wheel to position press head according to thickness of book and amount of pressure to be applied. Adjusts cutting mechanism by turning screws to cut linings and head bands to book size. Starts machines to process sample book and verify accuracy of machine setup. Monitors production run to detect machine malfunction. Directs bindery assistants in casing in line operations. Reads automatic counter and records number of books formed.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: I 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 3 3 3 5 5	1 9 0	0 Y

9517-118 GATHERING MACHINE SETUP OPERATOR (print. & pub.)

Sets up and operates machine that automatically gathers signatures (section of pages), and forms book bodies and magazines for binding: Installs and adjusts feed guides, joggers, holding clamps, pockets, rollers or other machine parts to accommodate specified size signatures, using hand tools. Sets grippers and gripper feelers according to thickness of signatures being gathered, using measuring instruments. Replenishes glue pot supplies and adjusts flow of glue. Inspects book or magazine sections to ensure materials are sequenced and numbered in specified order. Starts machine to process sample copies and verify accuracy of machine setup. Instructs bindery assistants engaged in feeding and off bearing activities. Monitors production run, by observing operation of machine, checking samples and making minor adjustments, as required.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 3 4 3 5 5	1 9 0	0 Y

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9517-119 PERFECT BINDER SETUP OPERATOR (print. & pub.)

Sets up and operates machine that automatically glues gathered signatures into paper covers to form paper covered or casebound books: Lays out sample of printed stock on work bench to check arrangement and sequence of pages, and to determine size of book and cover. Adjusts feed pockets to size of stock by turning hand wheel, and feeds signatures into pockets. Sets miller and sanding disk that score, cut, and roughen covers and spine of stock, using hand tools. Adjusts glue controls to regulate the flow of glue, according to the size of stock to be glued. Sets pressing station controls to regulate positioning of press roll and pressure to be exerted on cover and stock. Starts machine and makes trial run. Checks samples of imperfections and makes final adjustments. Directs bindery assistants engaged in feeding and off bearing activities, and restarts machine for production run. Monitors production run by observing operation and checking samples to ensure centring of cover, proper spine adhesion and accurate milling.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 3 4 3 5 5	1 9 0	0 Y

9517-122 STITCHING MACHINE SETUP OPERATOR (print. & pub.)

Sets up and operates machine that automatically stitches folded signatures to form magazines, pamphlets or paper bound books: Secures reel of stitching wire on spindle of stitching heads and threads wire through feeding, cutting, stitch forming and driving mechanisms. Positions and clamps stitching heads on cross arm to space stitches as specified. Adjusts feeder pockets to size of folded signature. Turns thumbscrews and handwheels to adjust length of stitches according to thickness of pages to be stitched. Adjusts cams and other mechanisms to synchronize speed of automatic feeding devices with spacing between stitches, using measuring instruments and hand tools. Starts machine and makes trial run. Makes adjustments, as required, and regulates machine speed for production run. Directs workers engaged in feeding and off bearing activities.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 5 3 4 3 5 5	1 9 0	0 Y

9517-123 SADDLE STITCHING MACHINE SETUP OPERATOR (print. & pub.)

Sets up and operates machine that automatically compiles folded signatures in sequence, and stitches and trims them to specifications, to form magazines, pamphlets or paper bound books: Installs tension rollers and sets guides and feeder hoppers, according to specifications, to ensure signatures drop onto carrier chronologically. Sets caliper unit, unit guides and roller pressure, according to width of compiled material, to ensure accurate delivery to trimmer. Adjusts stitcher head to desired position, aligns clincher points, using hand tools, and sets stitchers for specified length and thickness of stitch. Installs or removes knives, using hand tools, and aligns stroke size to

job cutting requirements. Starts machine to conduct test run and makes minor adjustments, as required. Examines samples for imperfections and solicits approval to commence production run. Directs bindery assistants engaged in feeding and off bearing activities. Takes hourly counter readings and keeps production records. May set up machine while machine is operating, by jogging material through each station and making adjustments as material travels through each area. May operate semiautomatic machine by depressing foot pedal to activate stitching mechanism at saddle.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 4 3 4 3 5 5	1 9 0	0 Y

9517-126 BOOKBINDER, MACHINE (print. & pub.)

Binds covers to books, periodicals and pamphlets by hand and machine, performing any combination of the following duties: Reviews job order to determine production procedures to follow. Compresses stapled or sewn signatures of book bodies to uniform thickness, using smashing machine. Trims book to size, using powered cutting machine. Applies glue to back of signatures to stiffen back of book body. Inserts each book into machine that rounds backs and forms grooves at back edge in which covers are hinged. Stacks and aligns books, after rounding and backing operation, and feeds books singly back down, into machine that glues head band, super-lining and backlining to each book. Directs bindery assistants engaged in feeding and off bearing activities. May fabricate cover for book, cutting and trimming material to size and gluing on bookbinding and chipboard. May finish book, using heated hand tools or gold stamping machine, to emboss or impress cover with lettering or designs.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 5 4 4 4 5 5	1 9	0 Y

9517-127 BOOK TRIMMER (print. & pub.)

Sets up and operates automatic trimming machine to cut three sides of paper bound and hard cover books to required size: Reads job order to determine trim size of book, required thickness of book, and type of cover material used. Adjusts and positions cutting blades to size of book, using hand tools, and sets pressure blocks on trimmer by loosening or tightening screws. Aligns feeding guides, by turning thumbscrews, to ensure uniform cutting and sets feeding mechanism, according to thickness of material, to control the delivery of materials to trimmer. Adjusts mechanical pushers that feed books into and out of trimmer, by turning thumbscrews. Starts machine and feeds books through trimming mechanism at desired pace, according to thickness of book. Checks samples by inspecting trimmed books for size of trim, centring of cover and neatness of cut. Restarts machine and monitors production run by checking samples and correcting irregularities, as required. Directs bindery assistants engaged in feeding and off bearing activities. Maintains trimming machine by regularly changing blades, and lubricating and cleaning machine. May

operate machine, equipped with spray booth, to spray colours on edges of books.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: I 5 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>4</u> 4 5 <u>4</u> 4 4 5 5	1 9	0 Y

9517-130 FOLDING MACHINE OPERATOR (print. & pub.)

Operates machine that automatically folds and cuts printed sheets into sections of pages for binding:

Installs and adjusts machine guider to accommodate specified size of sheet. Adjusts conveyor blades or knurled rollers to feed sheet into folding rollers. Adjusts screws to regulate tension on creasing blades and folding rollers according to thickness of paper and size and number of folds required, using measuring instruments and hand tools. Sets slitting knives to slit sheets as required. Starts machine and makes trial run to verify accuracy of machine setup. Moves and stacks sheets to be folded and adjusts machine settings during production run. May jog folded sheets and stack them for next operation.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 4 5 <u>4</u> 4 4 5 5	1 9	0 Y

9517-134 COLLATING MACHINE OPERATOR (print. & pub.)

Operates machine that automatically collates and glues specified number of paper sheets or rolls and carbon inserts into sets for use as business forms:

Adjusts feeder and paper guides according to size of stock, using hand tools. Replenishes glue reservoir and opens valve to pressurize reservoir. Sets suction mechanism, cams, gears and glue pins to regulate machine, according to width of roll, or number of sheets glued, and number of locations where glue is to be deposited. Locks rolls of opaque paper and carbon onto machine shafts and feeding mechanism, or loads sheets of paper onto table lifts to prepare for operation. Clamps numbering apparatus to wheel to print numbers on business forms. Starts machine and jogs paper through machine to conduct test run. Observes spacing and feeding of rolls or sheets to ensure product meets specifications. Monitors operation and takes corrective action when jam occurs. Removes collated forms from delivery tray and stacks material on skid or cart. May setup perforation cylinder to punch holes in completed forms, in conjunction with collating. May operate drill punch to punch holes in completed forms.

GED: 3 SVP: 4 PA: L 4 EC: I 5 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 4 5 <u>4</u> 4 4 5 5	1 3 9	2 0 Y

9517-138 BOOK-SEWING-MACHINE OPERATOR (print. & pub.)

Operates machine that automatically sews sheets of gathered and collated signatures (sections of pages) into book form prior to binding:

Replaces and threads needles, adjusts machine bed to width of pages, sets feed arms for size of pages, replaces used spools of thread and passes thread through guides. Fills hopper with signatures or places them in succession on feed arms. Adjusts programmer by plugging programming belt or keys in numerical control instructions on console to guide feeding and sewing action. Fills glue pot. Starts machine and jogs material through machine at slow speed to make final adjustments. Brings machine to full speed and monitors operation by checking samples to maintain production quality. Removes stitched books from delivery stacker and places them on skid, in preparation for covering. May operate semiautomatic machine equipped with foot pedals to sew individual signatures, stitch sewed signatures together, cut stitching and paste end sections to first and last signatures of books.

GED: 2 SVP: 4 PA: S 4 7 8 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 <u>4</u> 4 5 <u>4</u> 4 4 5 5	1 3 9	2 0 Y

9517-142 CUTTING MACHINE OPERATOR (print. & pub.)

Operates machine to cut and trim printed or blank paper stock prior to binding:

Reviews specifications to determine size of sheets and type of cut required. Sets cutting guides, clamps and knives using measuring instruments and hand tools to cut paper to prescribed dimensions. Directs bindery assistants to move stock to machine bed. Fans edges of sheets to prevent adherence and rolls or folds oversized stock as required. Jogs and straightens stock against back and side guides to ensure edges are true and square prior to cutting. Lowers clamp onto stock to secure stock in position during cutting. Pulls hand lever or depresses foot pedal to lower cutting blade through stock. Repositions stock against back board and guides for subsequent cutting. Examines cut stock for trimming imperfections. Removes sheets from machine bed and stacks sheets on skid or cart. Changes knives and performs routine maintenance on machine. May program and operate numerically controlled cutting machine by keying in job specifications and monitoring automatic cutting movements.

GED: 2 SVP: 4 PA: M 4 7 8 EC: I 5 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 5 3 4 3 4 5	1 3 9	2 Y

9517-146 BINDERY WORKER (print. & pub.)

Tends one or more of the following machines and performs any combination of the following duties involved in binding printed matter such as, books, periodicals, catalogues and business forms:

Punches holes in paper sheets, using gang-punch press. Stamps numbers on sheets by hand or machine. Creases and compresses signatures prior to affixing covers, using handpress. Fastens sheets or signatures together, using hand or machine stapler. Tends machine that inserts wire or plastic binding strips into punched holes, to fasten pages and covers together. Feeds covers, signatures, and sheets into various machines for collating, stitching, folding, perforating, indexing and gluing operations, as required. Observes operation to detect malfunction and makes minor adjustments. Removes, stacks and packs printed material in various stages of completion as it accumulates on delivery tables of machines. Examines stitched or bound books and

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periodicals to ascertain that pages or signatures are bound in numerical or folio order, according to sample copy, and to detect such defects as, imperfect bindings, ink spots, and torn, loose and uneven pages. Inserts extra sheets into catalogues or directories by hand or machine.

GED: 2 SVP: 4 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 4 5 5	1 3 9	2 Y

9517-150 CASE MAKER, HAND (print. & pub.)

Assembles and mounts hard covers to individual books, by hand and machine, for custom binding orders:

Places sewn and glued signatures in book form against guides of rounding and racking machine and depresses foot pedal to crease and round-out spine of book, to prepare book for covering. Applies glue to prepared spine, using brush. Cuts out piece of mull fabric according to size of spine, using scissors. Positions mull fabric on glued spine and overlaps edges to end papers to form strong, flexible backing. Measures book size, using measuring instruments, and cuts out covering cloth material, front and back boards and spine liner on manually operated guillotine cutter. Feeds cover cloth material through glue roller by hand. Lays out glued cover cloth against back guide of case making machine and secures cloth in place using clamp. Mounts cover boards and liner on cloth to form cover. Cuts corners of cloth, using scissors, to prepare material for turning the ends. Places cloth bearing boards and liner against guides on turning end machine, and depresses foot pedal to turn ends of cloth over the edges and onto inside of boards or turns cloth, by hand. Applies glue to end papers of book, using brush, and mounts book and prepared cover against guides of casing end machine. Depresses foot pedal to press cover to end papers to create finished book. May finish book, using heated hand tools or gold stamping machine, to emboss or impress cover with lettering or designs.

GED: 2 SVP: 4 PA: L 4 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 5 4 4 4 4 5	1 3 9	0 Y

9517-154 CASE MAKING MACHINE TENDER (print. & pub.)

Tends machine that glues printed cloth fabric onto cardboard sheets to form cover of hard covered book:

Examines job sample to determine size of book and width of spine. Fills glue reservoir and heats glue to prescribed temperature. Adjusts board feeder, lining guide, pressure platform, cloth feeder and pressure rollers, according to job requirements. Loads hoppers with cloth and cardboard supplies. Activates feeding device and processes samples to ensure boards are adequately glued and that cloth covers are folded, according to requirements. Makes final adjustments and starts machine. Tends operation and replenishes board, cloth and glue

supplies during production. Counts and records number of cases produced and stacks cases on skid.

GED: 2 SVP: 4 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 5 4 4 4 5 5	1 3 9	2 0 Y

9517-158 PERFORATING MACHINE TENDER (print. & pub.)

Tends machine that perforates printed matter such as, business forms and sheets of postage stamps:

Reviews work order to determine spacing and placement requirements for perforating bars and cutting edges. Adjusts side guards and feedboard wheels and delivery table settings, according to specified measurements, stock size and weight. Loads stock onto delivery table and activates machine to conduct test run. Compares perforated sample to work order specifications to ensure accurate placement and spacing of perforations. Tears sample along perforated line to ensure stock can be easily separated. Makes final adjustments and starts production run. Loads and unloads printed stock at delivery table or directs bindery assistants to do so. Tends operation to completion and checks samples for quality.

GED: 2 SVP: 3 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 5 4 4 4 5 5	1 3 9	2 0 Y

9517-162 SPIRAL BINDER (print. & pub.)

Tends machine that inserts plastic or metal coil spines into printed stock to bind and finish materials:

Reads job order and examines size of stock to select size of coil required. Punches perforations in printed stock by aligning stock on punch table and, manually, operating spine punch to prepare stock for binding. Loads and secures coil spine on holder and stretches coil open. Lays out perforated stock over open coil by matching perforations to coil teeth. Turns and closes coil by manipulating levers to connect ends of spine. Removes bound stock from machine bed and places finished stock in box or on pallet. May bind braille materials, using similar method.

GED: 2 SVP: 3 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 5 4 4 4 5 5	1 3 9	2 0 Y

9517-166 BINDERY ASSISTANT (print. & pub.)

Assists bindery machine operators and other bindery workers by performing any combination of the following duties:

Performs duties similar to those of 9318-110 MATERIAL HANDLER, GENERAL (any ind.), in assisting bindery machine operators. Conveys and distributes bindery materials and supplies, tools and machine attachments, and other appliances, using handcarts, trolleys and powered equipment. Performs routine tasks related to the assembly and installation, setup, maintenance or dismantling of

machines and equipment. Feeds bindery machines and off bears material during production. Stacks and straps material to pallets. Assembles boxes and containers, and packages materials and products, by hand. Cleans work area, machines and equipment, using brooms, rags and cleaning compounds. May perform shipping and receiving duties.

GED: 2 SVP: 3 PA: M 4 EC: 1 5 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 4 4 4 5 5	1 3 9	3 Y

9517-199 OTHER BOOKBINDING AND RELATED OCCUPATIONS

This residual group includes bindery workers, not presently classified, in Unit Group 9517.

9518-OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK, PRINTING AND RELATED ACTIVITIES

This unit group includes occupations in labouring and other elemental work, as described under the term title, **02-190 LABOURER/ELEMENTAL WORKER** (any ind.), which are concerned with printing and related activities.

9518-110 BINDERY MACHINE FEEDER (print. & pub.)

Feeds printed sheets, signatures (pages) or book covers into various bindery machines for folding, cutting, gathering, stapling or gluing into books or related products, performing any combination of the following duties:

Feeds printed sheets into fold guide of machine that automatically folds and cuts them for binding into books, business forms, folders, maps and similar items. Jogs pack of sheets or signatures to align edges and fans through them to ensure that they are in specified order, following sample. Places printed material in machines that gather, perforate and staple. Replenishes supply, as required. Feeds covers and gathered signatures into machines that automatically perform in sequence such operations as, rounding and backing, lining, casing in and pressing, to convert gathered signatures into complete books or periodicals.

GED: 1 SVP: 2 PA: L 4 EC: 1 5 DPT: 6 8 6

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 3 5 5	3 1	2 3

9518-114 ETCHER HELPER, GRAVURE (print. & pub.)

Helps etcher to prepare engraved copper plated printing cylinders by performing any combination of the following duties: Trucks printing cylinder from storage area to etching room. Inserts mandrel through cylinder and screws collar on mandrel to hold cylinder in position. Assists etcher or uses hoist to lift cylinder onto machine brackets and to transfer cylinders between vats. Inserts hand

crank into mandrel and rotates cylinder in rinsing and etching vats. Removes mandrel from etched cylinder and trucks cylinder to finishing bench. Tests strength of acid with alkaline reagent and drains vats of spent etching solutions. Cleans acid resistant coating from etched cylinder either by placing it in solvent bath and wiping dry with cloth, or by rubbing with a mild abrasive and cloth and rinsing with water. See also definition for term title, **02-160 HELPER** (any ind.).

GED: 1 SVP: 2 PA: M 4 7 EC: 1 6 7 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 4 4 3 4 5	3 1	2 3

9518-118 FORWARDER (print. & pub.)

Trims and rounds sewed signatures and pastes covers on to form books: Trims edges of sewed signatures, using paper cutting machine. Rounds back of sewed signatures by working outer signatures forward with fingers and pounding back into required curvature with hammer. Pastes end papers on book covers and pastes covers on sewed signatures to form finished books.

GED: 1 SVP: 2 PA: L 4 EC: 1 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 5 5 4 4 5 4 4 3 5 5	3 1	2 3

9518-199 MISCELLANEOUS OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK, PRINTING AND RELATED ACTIVITIES

This group includes occupations concerned with labouring and other elemental work, as described under term title, **02-190 LABOURER/ELEMENTAL WORKER** (any ind.), in printing and related activities, not presently classified in Unit Group 9518.

9519-PRINTING AND RELATED OCCUPATIONS, N.E.C.

This unit group includes printing and related occupations, not elsewhere classified, concerned primarily with setting up, operating, tending and feeding printing machines or devices, other than standard printing presses. Activities include: screen printing, embossed printing, mixing printing pigments, operating printing trade duplicating machines, operating high-speed laser and electronic printing machines, and off bearing materials from printing machines. Occupations concerned with operating or tending machines to stamp, imprint or emboss designs, lettering or surface finish on products are, when the work performed constitutes an integral part of the manufacturing process, classified in the appropriate unit group where the product is being processed or fabricated. Occupations concerned with placing identifying data on products or materials by stamping, imprinting, embossing, labelling, stencilling or similar techniques, separate from the manufacturing process are classified in Unit Group 8599, OTHER PRODUCT FABRICATING, ASSEMBLING AND REPAIRING OCCUPATIONS, N.E.C. Occupations concerned with operating and tending textile-printing presses

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are classified in Unit Group 9512, PRINTING PRESS OCCUPATIONS. Occupations concerned with operating office machines such as those used to duplicate, photocopy, emboss or address various items are classified in Unit Group 4141, OFFICE MACHINE OPERATORS.

Textile Printing Occupations, n.e.c. 9519-110 through 9519-130

9519-110 CLOTH PRINTER (textile)

Sets up and operates printing machine that prints patterns of various designs and colours on textile material:

Turns hand wheel to adjust pressure on printing cylinders. Turns screws, using wrench, to align register marks on cylinders with register marks on machine. Sharpens doctor blade, using file and oilstone, and verifies evenness of blade, using straightedge. Aligns doctor blade against printing cylinder, using hand tools. Fills colour boxes with colour paste. Presses button to start machine and scans cloth as it leaves machine for printing defects such as, smudges, colour variations and design misalignment. Realigns printing cylinders, as required. Records yardage of cloth printed. Directs activities of other workers assisting in machine operation. Notifies colour mixer when colour varies from specifications. May assist in mounting printing cylinders on machine when changing pattern.

GED: 3 SVP: 7 PA: M 4 5 6 7 EC: I 5 DPT: 6 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 3 3 3 4 3	9 1 0	Y 0

9519-114 CUTTING AND PRINTING MACHINE SETUP OPERATOR (textile)

Sets up and operates machine that cuts, prints and folds cloth used to make textile bags:

Reads work order to determine materials required and machine adjustments to be made. Conveys textile roll, ink rollers, ink can, printing plate and paper samples to machine, manually or using handtruck. Lifts heavy textile roll, mounted on core shaft, one end at a time, and secures in guide slots of machine. Threads end of material through guides and around rollers. Selects colours of printing inks, fills fountains and adjusts flow by turning fountain screws. Adjusts height of wiper blade, using wrench. Mounts printing plates around cylinder. Adjusts rollers to align printing plates, using hand tools. Adjusts length of cut and position of fold in textile bag lengths by changing gears on feed rollers. Starts and stops machine, and compares printed and folded bag length with paper sample to check alignment of printing plates and intensity of colour, and makes necessary adjustments. Starts machine, observes counter, removes printed and folded lengths from receiving bar as lots are completed and stacks on handtruck. Moves printed lengths between work areas, using handtruck.

GED: 3 SVP: 5 PA: VH 3 4 7 EC: I 5 DPT: 6 8 0

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 3 4 3 3 3 4 3	9 1 0	Y 0

9519-118 CLOTH PRINTING MACHINE TENDER (textile)

Tends feed roller section of printing machine that prints patterns of various designs and colours on textile material:

Positions cloth roll on machine brackets. Sews leading end of cloth to trailing end of preceding roll, using portable sewing machine. Starts feed rollers and turns setscrews to adjust width guides and tension devices. Sews new length of back grey cloth to preceding length to protect cloth being printed. Directs and assists other workers in removing and replacing colour boxes, blades, printing rollers and gears when changing pattern. Removes colour boxes and doctor blades, and washes printing rollers, using brush and waterhose, at end of printing operation. May refill colour boxes with colour paste.

GED: 2 SVP: 4 PA: H 4 7 EC: I 5 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 4 5 4 4 3 4 4	3 1 9	2 3 Y

9519-122 CLOTH PRINTING MACHINE HELPER (textile)

Helps workers involved in setting up and operating cloth printing machine to print patterns of various designs and colours on textile material:

Feeds fabric into conveyor system to feed printing machine. Observes cloth as it emerges from machine for defects such as, colour smears, grease spots and misalignment of design. Cuts sample patch from printed cloth and compares with standard to verify colour shade and position of design. Reports defects to cloth printer. Removes printed cloth from conveyor and drapes it over drying bars to pass cloth through oven to dry and set image. Marks lot number on end of each hand truck of printed cloth. Ravels seam as cloth leaves printing machine to separate lots. Assists in removing and replacing colour boxes, blades, printing rollers and gears. See also definition for term title, **02-160 HELPER** (any ind.). May sew end of back grey cloth to preceding roll to protect cloth being printed.

GED: 2 SVP: 2 PA: H 4 7 EC: I 5 DPT: 6 6 6

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 3 4 4 4 3 5 3	3 1	2 3 Y

9519-126 STRIKE OFF MACHINE TENDER (textile)

Tends strike off machine that prints cloth with samples of colour paste to determine colour quality prior to production printing:

Tears strip of sample cloth from supply roll. Pours sample colour paste on engraved strikes (depressions) of roller in strike off machine. Presses button to start machine and feeds in sample cloth. Removes printed sample from machine. Positions printed sample under flap on drying can. Adjusts drying can heat control to dry sample. Takes sample to supervisor for colour quality check. Cleans strike off roller and doctor blade, using brush and water.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 4 5 4 4 3 5 4	3 1 9	2 3 Y

9519-130 CLOTH PRINTING ROLLER CHANGER (textile)

Assembles and mounts printing rollers on cloth printing machine: Inserts mandrel partially into printing shell. Positions shell on hand or hydraulically operated jack, using hoist. Turns hand wheel or operates valve to move jack ram that presses mandrel into shell to assemble completed roller. Removes used rollers and installs new rollers on machine, assisted by other workers, or using hoist. Moves used rollers to storage area, using dolly and hoist. Removes mandrel from shell, using hand or hydraulically operated jack. Covers shell with heavy protective paper. May strip damaged chrome from rollers, using oven, muriatic acid and water.

GED: 2 SVP: 2 PA: H 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 <u>3</u> 4 5	3 1	2 3

Screen Printing Occupations
9519-150 through 9519-166

9519-150 SCREEN STENCIL CUTTER (any ind.)

Cuts stencils, for use in screen printing according to design: Aligns and tapes design on illuminated glass cutting table. Tapes transparent or shellac coated paper over design. Traces and cuts outline of design in film or paper, using knife. Positions and secures stencil on screen preparatory to printing. Cuts stencils for each colour to be reproduced. May draw directly on screen and fill in surfaces around design with glue, lacquer or paper. May operate screen printing equipment.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	1 9	0 Y

9519-154 SCREEN PRINTING MACHINE OPERATOR (any ind.)

Operates screen printing machine to print multicolour designs and prints on paper, metal, plastics, textiles and other material: Mounts screens on press frame in specified sequence. Pours printing paste and ink on screens or fills automatic feed pan. Turns knob to set machine speed and adjusts swing and pressure of squeegees, using hand tools. Sets dryer thermostat controls. Presses button to start machine and conveyor belt. Inspects printed articles for flaws by comparing them to approved samples. Turns screws to adjust position of screens if colours are out of register. Removes foreign matter from screens to ensure smooth flow of printing paste and adjusts flooder and squeegee pressure to ensure even distribution of ink. Tapes leaks in coated portion of screen. Cleans and replaces squeegees and screens. May screen print designs or lettering on glass containers, using manually controlled or automatic decorating equipment.

GED: 3 SVP: 4 PA: L 4 7 EC: I 7 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 <u>3</u> 4 <u>3</u> <u>3</u> 5 <u>3</u>	9 1	0 Y

9519-158 SCREEN PRINTER, HAND (any ind.)

Screen prints lettering or designs on paper, metal, ceramics, textiles and other materials by performing any combination of the following duties:

Sets guides in specified position on set-up board or printing table. Places and secures article against guides, using pins, tape or adhesive. Lowers and clamps screen over articles. Weighs and mixes pigments, according to specification. Pours pigment on screen or dips squeegee into liquid. Draws squeegee across screen to transfer lettering or design to article. Repeats process with different screen for each additional colour in design. Examines article for printing flaws. Cleans squeegee and screen, using solvent. May brush or spray lacquer over printed surface, using brush or aerosol can, and dry articles in oven.

GED: 2 SVP: 3 PA: L 4 7 EC: I 7 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> <u>4</u> <u>3</u> 4 <u>3</u> 5 3	1 9	2 0 Y

9519-162 SCREEN PRINTING MACHINE TENDER, CONTAINERS (any ind.)

Tends machine that screen prints designs on glass, paper, metal and plastic containers:

Fills reservoir with ink or paint or pours ink directly onto screen. Starts machine and places container in holder or revolving chuck and depresses foot pedal to rotate and press container against screen stencil to print design or data on container. Releases foot pedal and removes stencilled container and inspects for printing defects. Places printed container on conveyor and repeats process to complete production run. Cleans machine and screen using solvents. May tend machine to brand electronic tubes and components with identifying data and be designated accordingly.

GED: 2 SVP: 2 PA: L 4 7 EC: I 7 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> <u>4</u> <u>4</u> <u>3</u> 5 4	3 1	2 3

9519-166 SILK-SCREEN ASSEMBLER (any ind.)

Stretches and fastens screening material to wood or metal frames to make printing screens:

Clamps frame to screen stretcher. Selects specified screening material and cuts material to size of screen, using knife. Pulls screening material over frame and secures edges on anchor pins of screen stretcher. Turns adjusting wheels on stretcher to stretch and straighten screening. Examines and feels screen to determine straightness and tension. Glues or staples screening material to frame. Trims excess material from edges of frame, using knife. Removes frame from stretcher. May prepare photosensitive solution and apply solution to screen prior to photo-processing. May wash and reclaim used screens by removing ink and photoemulsion solution, using solvents and water.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> <u>4</u> <u>3</u> 4 <u>3</u> 5 5	3 1	2 3 Y

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Miscellaneous Printing Machine Occupations, n.e.c. 9519-180 through 9519-299

9519-180 PRE-PRESS PLANNER (print. & pub.)

Interprets and rewrites job docket specifications into practical operating instructions, using extensive knowledge of printing processes, to meet customer and production needs:

Reads job docket instructions received from estimating to interpret and verify the practicability of instructions from a production standpoint, using extensive knowledge of printing processes. Discusses problems concerning instructions with originator and recommends changes to resolve questions and satisfy customer and production needs. Plots rough layout of job on schematic sheets and prepares written instructions, concerning such matters as, colour of ink, type of paper stock, size of job, colour sequence of run and finishing requirements. Translates job docket specifications into operating instructions for press and bindery crews, to ensure end product requirements are met. Resolves production problems by discussing assembly, press or bindery queries with production supervisors and operators, and by modifying operating directions to achieve desired end results. May meet customer to ensure end product meets their requirements.

GED: 4 SVP: 6 PA: L 5 7 EC: I DPT: 2 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 4 3 4 4 4 4 5 4	9 1	0 Y

9519-186 RULING MACHINE OPERATOR (print. & pub.)

Operates machine that draws straight ink lines on paper sheets:

Inserts ruling pens in beam of machine and adjusts spacing to draw lines as specified on sample sheet or work order. Sets paper guides to size of sheet. Cuts and folds pads of wool flannel, soaks them in ink, and attaches them to beam over pens. Soaks pieces of wool yarn in ink and attaches them to pads and pens. Places stack of paper sheets on feed board of machine or installs roll of paper in machine. Starts machine and examines lines being drawn to detect variations in line width or colour tone. Prepares ink solutions and maintains supply for pens. Cleans pens and machine with solvent. May operate one or more ruling machines. May operate roll fed machine equipped with paper cutter and two sets of pens to draw horizontal and vertical lines.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 4 3 4 3 4 3 5 3	9 1	2 Y

9519-190 WALLPAPER PRINTER (paper prod.)

Operates machine that prints coloured patterns on wallpaper:

Installs print rollers in specified machine brackets, using wrench. Threads wallpaper through machine. Turns adjustment screws on drive gears to position print rollers. Adjusts scraper bar and tension on sieve cloths, using hand tools, to control quantity and distribution of colour solution on wallpaper, using hand tools. Starts machine and observes printed wallpaper for defects such as, colour splashes, smears, and misalignment of printed design. Adjusts machine to rectify printing

defects. Directs helper to change, fill or maintain levels of colour trays and to change printing rollers.

GED: 3 SVP: 5 PA: M 2 4 7 EC: I DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 4 3 5 4 4 3 5 3	9 1	0 Y

9519-191 ELECTRONIC PRINTING AND FINISHING MACHINE OPERATOR (print. & pub.)

Operates automated high-speed printer that prints, collates, inserts and binds standard letter size stock from originals or material submitted on magnetic tape, according to customer specifications, in rapid printing service outlet:

Reads job instructions to determine number of copies to be reproduced, stock colour and binding requirements, and to determine if reverse side printing is required. Places originals or loads tape into automatic document handler or tape drive, and loads printing stock and cover stock in feed trays to prepare for operation. Programs printer according to preformatted instructions provided by customer or sales department, to automatically set up quantity to be printed, positioning of margins, contrasting, reducing, binding specifications and other job related factors. Activates printer to produce sample copies. Examines samples to check formatting and binding quality and makes adjustments by re-entering commands on keyboard, if required. Runs job to completion according to customer specifications. Completes customer invoice and forwards completed job and invoice to shipping. Maintains machine supplies by adding new glue or toner containers, and replacing spools of staple wire. May operate printing machine that separates copy by means of slip sheets.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 4 3 4 4 4 3 5 4	9 1	0 Y

9519-192 LASER PRINTER OPERATOR (print. & pub.; bus. serv.)

Operates laser printing machine that automatically prints duplicated copy from data encoded on magnetic tape, computer disk or from hard copy originals, in a rapid printing service establishment:

Reviews work order to determine colour and weight of stock required, quantities to be printed and to assess other job factors. Checks dry ink levels and replenishes supplies, as required. Loads original into automatic document handler or inserts tape or disk into drive mechanism. Loads paper stock on feed tray, adjusts feed guides and lowers stock into position. Enters command codes on console keyboard to activate laser to scan and decode data recorded on tape, disk or in original form, to provide programming specifications for printing. Keys in programming data on keyboard and activates printer to run sample copies. Inspects samples for quality, balance and clarity. Keys in adjustment commands on keyboard to correct irregularities, if required. Operates printer to complete printing order and monitors operation to completion. Unloads reproductions from delivery tray and forwards lot to shipping. Removes originals, tape or disk from machine. Completes customer invoices and keeps production records.

May clean machine and replace worn parts such as, belts and transports.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 3 4 <u>4</u> 4 3 5 4	9 1	0 Y

9519-194 PLASTIC PRINTER (plastic prod.)

Operates press to print coloured designs on plastic or plastic coated fabrics:

Installs printing cylinder in press, using hand tools. Pours inks into ink fountains. Threads material through press rolls and starts press by depressing button. Turns wheels to adjust scraper blade, printing rolls and tension on let-off rack and turns rheostat to regulate speed and feed of press. Examines printed material for defects such as, wrinkles, tears, smeared printing and uneven colour distribution. May operate press that prints designs and applies lacquer finish to plastic coated fabric.

GED: 3 SVP: 4 PA: M 4 7 EC: I DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 3 5 <u>4</u> 4 3 5 <u>3</u>	9 1	0 Y 2

9519-198 APPROVER (print. & pub.)

Examines and approves for printing pre-run samples of printed sheets, ensuring adherence to customer specifications and conformity with company quality control standards:

Receives pre-run printed sheet or random sample taken from printing run and places it on squared and calibrated glass surface of illuminated table. Reads text and legends and compares with copy layout. Aligns edges of sample sheet against vertical and horizontal lines inscribed on glass to check dimensions of sheet and to observe disposition of text and designs on printed area, using pen, printer's measure, rules and squares. Scrutinizes printing for correct impression, evenness of ink distribution, using densitometer, and marks light and dark areas with pen. Checks registration of colour overprinting by examining outlines and other critical portions of printed area, using loupe. Folds sample sheet to check alignment and cut of punched holes. Examines perforations on sample to see that sheets do not fall apart; tugs sheet at perforation to see if sheet parts without tearing. Enters examination findings or stamps approval for printing on back of sample and on control chart. Files chart, and returns sample sheet to pressman as a guide to press adjustment, and if sample is acceptable, sanctions press run.

GED: 3 SVP: 4 PA: L 4 7 EC: I 5 7 DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 <u>3</u> 2 <u>3</u> 4 4 4 5 5	1	0 9 Y

9519-202 OFFSET-DUPLICATING MACHINE OPERATOR (print. & pub.)

Operates offset-duplicating machine to reproduce single- or multi-colour copies of short run orders such as, charts, schedules, bulletins

and related matter, in rapid service outlet:

Reviews work order to determine colour of ink, type and size of paper, and number of copies required. Installs printing plate around plate cylinder, using lever attachment. Turns hand wheel and ink fountain screws to regulate ink and water flow. Stacks paper on feed table and positions spring guide on side of paper stack. Raises feed table to height of paper by turning handle. Sets dial controls to adjust speed and feed of machine, according to weight of paper. Starts machine and monitors printing to completion. Cleans and files plate. May be designated according to trade name of machine operated.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 4 <u>4</u> 4 3 5 4	9 1 3	0 Y 2

9519-206 SIGN WRITER, MACHINE (print. & pub.)

Operates sign printing machines to print store display cards and signs, using one of the following methods:

Clamps cardboard on base of machine that prints individual letters. Pushes lever to position case over cardboard. Pulls lever to depress plunger that prints letter on cardboard. Chooses type style, positions letters in composing stick, and clamps stick on bed of manual platen press that prints sign in one operation. Selects and mixes coloured ink and applies it to type, using roller. Inserts cardboard into holding clamps of press, and pulls carriage to end of press bed. Depresses pedal to lower cylinders against cardboard and type to print sign. Removes and cleans typecase, using chemical solution. May lay out display signs that include photographs or merchandizing samples. May use chemicals and heat to produce embossed signs.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> <u>3</u> 4 <u>3</u> 4 <u>3</u> 4 4	9 1	2 Y

9519-207 ELECTRONIC SIGN MAKER OPERATOR (print. & pub., plastic prod.)

Operates computerized sign making machine that automatically prints and cuts out lettering for signs, according to predetermined instructions:

Reads work order to determine job specifications such as, stock requirements, size of sign or display to be produced, letter sizing calculations and text formatting instructions. Programs sign making machine at terminal keyboard and enters sizing, spacing and other predetermined layout instructions. Selects, and loads specified colour and type of vinyl roll stock on sign maker drum, to prepare for printing and cutting. Activates controls to begin automatic printing and cutting action, and monitors operation to completion. Gathers cut letters and prepares them for mounting and assembly by removing excess vinyl and by covering letters with contact paper. Forwards letters to assembly section for mounting. May operate phototype setting machine to prepare camera-ready copy in letter form for sign making, by setting up and loading phototypesetter, typing in text, according to

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layout and markup instructions, and developing film in automatic developing machine.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 4 <u>3</u> 5 4	9 1	2 Y

9519-210 TAPE RULE PRINTER (metal fab., n.e.c.)

Prints graduations and numerals on steel measuring tapes by either of the following methods:

Selects and mounts specified cams and printing wheels on machine, using hand tools and electric hoist. Lifts reel of steel tape onto machine spindle. threads tape leaders through machine, drying oven and cooling and reeling units. Starts machine and observes printing process to ensure proper inking. Examines tape rule for printing defects and compares with master rule to verify length and accuracy of graduations. Selects and mounts specified reels of coated steel tape into trunnions at end of bench. Assists other workers to extend, align, adjust tension, and clamp steel tapes on bench. Mixes inks and pours into reservoirs of inking machine. Positions printing plate in inking machine and manually operates roller mechanism to ink plate. Positions inked plate over steel tapes, using bench mounted tooling pins. Positions printing press over plate. Pulls lever to lower press and plate that prints graduations and numerals on one foot sections of tapes. Repeats operation to complete specified length of steel tapes. Examines tapes for printing defects. Changes inking rollers, reservoir and plates and repeats operations to overprint in red, if required. Cuts printed section from length of tapes and winds finished tapes on reels. Cleans plates, reservoir, press, and inking units.

GED: 3 SVP: 4 PA: M 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 <u>3</u> 3 <u>3</u> 4 4	9 1	0 Y

9519-211 EMBOSsing ENCODING MACHINE TENDER (plastic prod.; print. & pub.)

Tends machine that automatically embosses numbers and encodes machine readable magnetic strips on plastic cards, and transfers coloured bands to embossed areas on plastic cards:

Counts plastic cards received, using electronic counting device, to determine quantity of stock to be processed and to guard security of cards. Programs memory of embossing encoding machine by keying in individual card numbers, to ensure embossed numbers match encoded data on strip. Inspects individual cards for die cutting flaws and loads cards into hopper or stacker for individual feeding through machine. Starts machine to automatically jog cards through processing, to encode and emboss and, to transfer bands to embossed areas on individual cards. Tends operation and monitors quality by visually inspecting cards and by feeding cards through electronic encoding check to ensure that readout is accurate. Batches finished cards into lots using electronic counter and forwards lots to shipping. May

operate machine that mounts magnetic tape strips on reverse sides of cards.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 5 5	9 1	2 0 Y

9519-212 HOLOGRAM IMPRINTING MACHINE TENDER (print. & pub.; plastic prod.)

Tends machine that automatically stamps holograms from tape onto plastic cards:

Inserts roll of hologram tape on spindle and runs tape end through machine, attaching end of tape to takeup reel. Loads plastic cards into hopper of machine and jogs several cards through mechanism to test automatic feeding. Requests assistance of repair technician, if adjustments should be required. Starts machine that automatically die cuts holograms from tape and imprints them onto cards. Tends operation of machine and visually inspects individual cards for flaws in hologram. Spot checks sample cards, using micrometer to measure positioning of holograms on cards, to ensure specifications are met. Places completed cards in boxes for counting, security storage and eventual shipping to customers. Cleans machine, using solvent and rags, to wipe off die and ensure accurate imprinting of holograms. May count cards, using electronic counting machine.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 3 <u>4</u> 4 <u>4</u> 5 5	9 1 3	2 0 Y

9519-214 EMBOSSED PRINTING MACHINE TENDER (paper prod.; print. & pub.)

Tends machine that embosses and prints designs or lettering on paper: Loads and positions roll of paper on machine. Positions and adjusts embossing rollers on machine, using hoist and hand tools. Threads paper through rollers and attaches end to empty spindle, using tape. Connects steam line to embossing rollers, using hand tools. Turns valve to regulate steam to specified pressure. Mounts printing head on machine, using hoist and hand tools. Mixes and pours ink into machine reservoirs. Depresses button to start machine and observes operation to detect malfunctions. Cleans ink reservoirs, using solvent and scraper.

GED: 3 SVP: 4 PA: L 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 <u>4</u> 4 <u>3</u> 4 <u>3</u> 4 5	9 1 3	2 Y

9519-218 TICKET MACHINE TENDER (any ind.)

Tends machine that prints information such as, model, shade, price, size, style or colour, on tags, tickets, labels or manufactured products of various materials:

Selects and positions type according to specifications. Inserts type into machine using fingers or tweezers, or turns dial on machine to move type into printing position. Mounts roll of labelling material on machine spindle and weaves end of roll through feeding device, or

positions single tag or manufactured product on machine brackets, between feed rollers or on feed bed. Turns crank to operate manually operated machine or starts automatic machine to print information on material. Removes printed material from delivery end of machine. Sews tags on articles or materials. May apply ink to inking rollers with brush or spatula. May tend machine equipped with automatic cutters and staplers and controls that stop machine when specified number of tickets have been printed.

GED: 3 SVP: 3 PA: L 4 7 EC: I DPT: 5 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 <u>3</u> 3 3 4 4	3 1 9	2 Y

9519-220 PRE-PRINT COATING MACHINE TENDER
(print. & pub.)

Tends machine that coats and bakes lacquers onto metal printing sheets to prepare them for receiving print: Adjusts feed mechanism, guides and suckers on machine to accommodate size and thickness of metal sheets to be coated. Pours prepared lacquers into trough, to replenish supplies. Loads and installs coating roll in machine by unlocking and locking holding clamps. Sets feeding speed of machine and adjusts temperature controls to raise or lower over temperatures, according to specifications. Activates machine and monitors coating process to ensure uniform coverage of sheet. Removes coated sheets from oven and forwards them to press area. Cleans and maintains coating machine.

GED: 2 SVP: 3 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 <u>4</u> 4 <u>3</u> 5 5	1 3 9	2 Y

9519-222 BOX PRINTER (any ind.)

Tends machine that prints designs or identifying data on cardboard or wooden boxes used to package a variety of products: Selects printing plate, prepares or arranges type, according to work order. Locks type or plate in machine, using hand tools. Fills ink fountains with specified colours and adjusts ink flow. Loads feed hopper, starts machine and observes printing operation. Cleans type or plate and rollers, using solvent. May position box ends on holding plate and depress pedal to lower plate that prints data on box ends. May print data on paper envelopes. May inspect edges of wooden box parts for defects.

GED: 2 SVP: 3 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 3 3 5 4	3 1 9	2 Y

9519-226 BRONZER TENDER (print. & pub.)

Tends machine that sprays decorative bronze powder on sheets, labels and cards printed with special adhesive ink:

Mixes brass and copper powders, manually, to obtain specified bronze colour. Fills machine feeding trough with bronze powder, using scoop. Adjusts pressure on burnishers to give specified lustre and sheen to burnished bronze powder, using hand tools. Sets guide bars on delivery end of conveyor, using hand tools. Presses button to start machine when printed sheets are transferred by conveyor from offset press. Examines bronzed sheets for scratches and unevenness and adjusts machine as required. Greases, oils and performs minor repairs on machine, as required.

GED: 2 SVP: 3 PA: L 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>3</u> 5 <u>4</u> 4 <u>3</u> 5 <u>3</u>	3 1 9	2 3 Y

9519-230 BRAILLE IMPRESSING MACHINE OPERATOR
(print. & pub.; social wel.)

Operates impressing machine to reproduce braille text from zinc plates:

Prepares zinc plates for mounting by bending edges of plates and die cutting registration holes, using crimper device, to ensure plates will be held securely in flat beds of impressing machine. Mounts plates on top and bottom flat beds of impressing machine by sliding them into place against guides and tightening screws, using hand tools. Loads roll of appropriate paper stock onto feed spindle and feeds end of roll through flat beds, on rollers and into automatic guillotine cutter, or positions pre-cut paper sheets on bench of machine. Sets automatic counter to reproduce required quantity. Starts machine and visually observes automatic feeding and cutting to ensure quality of reproduction is achieved, or inserts and removes sheets of paper from moving jaws of plates to puncture sheets to reproduce text. Removes sheets from delivery table or stacks sheets into lots, according to finished product needs, for eventual binding. May bind braille materials.

GED: 2 SVP: 3 PA: L 4 7 EC: I 5 DPT: 5 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 <u>3</u> 5 5	3 1 9	2 3 Y

9519-234 BALLOON PRINTER (rubber)

Prints designs and lettering on balloons by either of the following methods:

Mounts printing plate on printing cylinder, using two-sided adhesive and adjusts cylinder pressure. Pours ink into trough of printing machine and adjusts ink roller. Inflates balloon on air nozzle. Starts machine and manually aligns, presses, and rolls balloon across inked printing plate or feeds inflated balloon on moving conveyor to 'press roller for automatic printing and drying. Deflates balloons and drops them on conveyor for deposit in shipping carton. Cleans machine rollers, plates and troughs with solvents. Loads prepared silk-screen frame on case of printing machine and clamps frame in place. Pours ink onto screen. Adjusts swing and pressure of squeegee. Inflates balloon on automatic air nozzle. Activates conveyor belt that conveys inflated balloon to silk-screen mechanism, to print screened image on balloon. Inspects samples to ensure silk-screening impression meets

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standards. Monitors operation to completion, making minor adjustments to machine, as required. Removes and cleans silk-screen frame, using solvent and water.

GED: 2 SVP: 2 PA: S 4 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 4 <u>4</u> 4 3 5 4	3 1 9	2 3 Y

9519-238 FLOOR COVERING PRINTER (linoleum prod.)

Tends machine that prints colours and designs on floor covering. Installs and adjusts printing rollers in machine, using hand tools. Fills machine troughs with specified preweighed paint. Inserts floor covering into machine. Presses button to start machine and observes operation to detect printing flaws. May tend machine that coats asbestos impregnated felt with special sealing and anti-discoloration paint.

GED: 2 SVP: 2 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 3 5 4	3 1 9	2 3 Y

9519-242 GLOVE PRINTER (garment & fabric)

Tends press that prints identifying information on gloves. Inserts specified type in press bar holder, using tweezers. Spreads ink on inking roller, using ink can. Places gloves in specified position on conveyor and presses button to start press. Removes and examines printed gloves to detect printing defects. Pairs gloves according to clarity of printing. Cleans type as required, using solvent. May print identifying information on fabric parts of sports equipment.

GED: 2 SVP: 2 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 3 5 5	3 1 9	2 3 Y

9519-246 SHOTGUN SHELL PRINTING MACHINE TENDER (explosives)

Tends machine that prints identifying data on top wad or body of shotgun shells. Selects and installs specified printing rollers or die set in machine. Fills ink reservoir. Fills feed hoppers with wads or shell bodies. Starts machine and examines wads or shell bodies for printing defects. Cleans type or replaces dies to obtain clear impression. Weighs and records type and amount printed. Loads printed wads in shell loading machine feed tubes, using shaker board. May tend machine that erases and reprints defective printing on shotgun shell bodies.

GED: 2 SVP: 2 PA: L 4 7 EC: I 5 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 4 3 5 5	3 1 9	2 3 Y

9519-250 TRANSFER MACHINE TENDER (garment & fabric; shoes)

Tends machine that applies transfer trademarks on socks, shoe insoles and other articles. Positions roll of specified transfers on reel. Threads paper between heated rollers onto takeup reel. Starts machine by depressing foot pedal and positions article on conveyor belt. Examines marked article and changes transfer paper or notifies supervisor to correct defects. May stamp transfers designating size, trade mark and yarn type on socks, using hand transfer iron.

GED: 2 SVP: 2 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 5 <u>4</u> 5 <u>4</u> 4 3 4 5	3 1 9	2 3 Y

9519-254 WALLPAPER SAMPLE SHEET MAKER (paper prod.)

Tends printing machine that prints data on back of wallpaper and cuts into sheets for sample book. Rolls specified reels of wallpaper to cutting and printing machine. Inserts shaft through core of reel and lifts shaft, manually, one end at a time, into recesses on machine feedrack. Threads paper through tension rollers. Positions preset type on printing cylinder. Turns adjusting screws to synchronize printing with cutting process. Presses button and moves lever to start machine. Gathers printed sample sheets from delivery tray and stacks on mobile rack.

GED: 2 SVP: 2 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 3 4 5	3 1 9	2 3 Y

9519-258 PLASTIC PRINTER HELPER (plastic prod.)

Helps plastic printer to print coloured designs on plastic material, performing any combination of the following duties: Inserts spindle through roll of plastic material. Adjusts collars to centre roll on spindle and installs and clamps spindle on press feed rack. Mixes inks to specifications and fills press fountains. Threads material through press rollers and tapes end to windup roll. Places cardboard core on rewind spindle and tapes end of printed material to core. Moves controls to rewind specified quantity of printed material. Observes rewinding and marks or cuts out printing defects. Records weight and amount of plastic on rolls. Cleans ink rollers and pan, using solvent. See also definition for term title, **02-160 HELPER** (any ind.).

GED: 2 SVP: 2 PA: M 4 7 EC: I DPT: 5 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 4 <u>4</u> 3 4 4	3 1	2 3 Y

9519-262 WALLPAPER PRINTER HELPER (paper prod.)

Helps wallpaper printer to print coloured designs on wallpaper by performing any combination of the following duties: Carries colour solutions to printing machine. Changes and fills colour

trays and maintains solution level during printing process. Assists printer to change printing rollers. Cleans rollers and work area, using solvents and water hose. See also definition for term title, **02-160 HELPER** (any ind.). May tend machine that applies ground coat to wallpaper.

GED: 2 SVP: 2 PA: M 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 <u>3</u> 4 4	3 1	2 3 Y

9519-299 OTHER PRINTING AND RELATED OCCUPATIONS

This residual group includes occupations concerned with printing and related activities not presently classified elsewhere in Minor Group 951.

953-STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING AND RELATED OCCUPATIONS

This minor group includes occupations concerned with operating equipment to generate electric power and control its transmission through wide-spread distribution systems for utilization by consumers; operating and maintaining stationary engines and related equipment to supply heat, ventilation, refrigeration, light or power at buildings, industrial plants or other worksites; operating utilities services to supply and purify water or to dispose of sewage and waste; operating pumping and pipeline equipment to convey, store or distribute materials such as oil and natural gas; and performing related activities. These occupations are classified in the following unit groups:

- 9530** Foremen/women, Stationary Engine and Utilities Equipment Operating and Related Occupations
- 9531** Power Station Operators
- 9533** Stationary Engine and Auxiliary Equipment Operating and Maintaining Occupations
- 9535** Water and Sanitation Utilities Equipment Operating Occupations
- 9537** Pumping and Pipeline Equipment Operating Occupations
- 9539** Stationary Engine and Utilities Equipment Operating and Related Occupations, n.e.c.

9530-FOREMEN/WOMEN, STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING AND RELATED OCCUPATIONS

This unit group includes occupations, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers engaged in operating equipment to generate and distribute electricity; operating stationary engines and auxiliary equipment; and operating water and sanitation utilities, pumping and pipeline equipment.

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

- 9530-114** **FOREMAN/WOMAN, STATIONARY ENGINE AND AUXILIARY EQUIPMENT OPERATING OCCUPATIONS** (elec. power; utilities, n.e.c.)

Supervises and co-ordinates activities of workers engaged in operating various types of stationary engines and auxiliary equipment, (Unit Group 9533):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9530-110 FOREMAN/WOMAN, POWER-STATION OPERATORS (elec. power)

Supervises and co-ordinates activities of workers engaged in operating equipment to generate, transmit or distribute electrical power. (Unit Group 9531):

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9530-118 FOREMAN/WOMAN, WATER AND SANITATION UTILITIES EQUIPMENT OPERATING OCCUPATIONS (utilities, n.e.c.; waterworks)

Supervises and co-ordinates activities of workers engaged in operating equipment to purify, treat and distribute water; or to treat and dispose sewage, industrial wastes, garbage or refuse, (Unit Group 9535):
Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9530-122 FOREMAN/WOMAN, PUMPING AND PIPELINE EQUIPMENT OPERATING OCCUPATIONS (any ind.)

Supervises and co-ordinates activities of workers engaged in operating pumps and controls to regulate flow of oil, natural gas, chemicals or other materials through pipeline transmission and local distribution systems, or between storage and production areas, or during processing activities, (Unit Group 9537):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9530-199 OTHER FOREMEN/WOMEN, STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING OCCUPATIONS

This residual group includes foremen/women of stationary engine and utilities equipment operating and related occupations not presently classified in Unit Group 9530.

9531-POWER STATION OPERATORS

This unit group includes occupations concerned with controlling equipment in power plants to generate electricity, utilizing thermal, hydro, internal combustion or atomic power sources; monitoring and controlling equipment to transmit electrical power over wide areas through distribution systems to consumers; operating stand-by generating plants and electrical-power conversion systems; and performing other duties related to the generation and distribution of electricity.

9531-110 LOAD DISPATCHER (elec. power)

Co-ordinates supply of electricity from generating stations, substations, and lines of electric power systems to ensure availability and adequate distribution of electricity to meet power demands:
Receives load schedules for various generating stations, or in smaller system, forecasts probable load, according to corrected weather and consumer-demand records. Notifies generating stations of electric power required to meet fluctuating demands. Co-ordinates tie-in with other systems. Directs de-energizing of malfunctioning circuits or adjustment of switches to ensure safety of maintenance crew, and to avoid interruptions of service during repairs. Notifies maintenance crew of location and de-energization of troubled sector, and verifies that all crewmen are clear of repaired equipment before directing energization of circuit. Compiles operational records. May operate

computer which is programmed for automatic load-control functions. May calculate discharge rate of water in reservoir from reports of rain, river flow, and water level in reservoirs, and direct setting of water gates at hydroelectric plant to co-ordinate water flow and power generation with irrigation and flood control requirements. May telephone large industrial consumers and civic authorities to inform them of loss or return of power caused by system failure.

GED: 4 SVP: 8 PA: S 4 5 6 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 3 3 3 4 3 4 4 4 5 5	9 2	0 Y 8

9531-111 LOAD-DISPATCHER APPRENTICE (elec. power)

Performs duties of **9531-110 LOAD DISPATCHER** (elec. power) on a progressive basis according to training schedule. See also definition for term title, **02-010 APPRENTICE** (any ind.).

9531-114 SUBSTATION INSPECTOR (elec. power)

Inspects and tests electric current-converting and distributing equipment in substation of electric power system to verify operating performance, and accuracy and serviceability of equipment:
Examines equipment, such as transformers, oil switches, fuses, lightning conductors, voltage regulators, and related equipment. Tests circuitry, using standard electrical testing apparatus. Inspects automatic controls and recorders in unattended stations to verify performance according to specifications in cumulative-operation records. Calculates average and peak load conditions from recorded data. Compiles reports on load conditions and results of tests for evaluation of equipment performance, and system planning. Actuates switches to de-energize malfunctioning substation circuits and distribution lines to ensure safety and advises maintenance crew preparatory to repairs. Re-energizes circuits when advised that malfunction is corrected and repair crew is clear of power lines. May control operation of attended substation in absence of regular operator.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: B DPT: 2 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
2 3 3 3 3 4 4 4 5 4	1 9	0 Y

9531-118 DIESEL-PLANT OPERATOR (elec. power)

Operates and maintains diesel-electric generating units producing electric power for consumer distribution, or in-plant consumption:
Performs duties similar to those of **9533-122 STATIONARY ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operating diesel-electric equipment. Starts diesel engine and adjusts controls to synchronize generator with other generators in operation, or with other power source. Observes instrument and warning lights to ensure proper functioning and records operating data on log sheets. Opens, closes and tags electric circuits as instructed, and reports any evidence of malfunction to controller of switchboard. Inspects equipment at regular intervals and attends to routine servicing duties,

such as cleaning, oiling and greasing, minor adjusting or repairing, using oil can, grease gun and hand tools.

GED: 4 SVP: 7 PA: L 4 5 7 EC: 1 5 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>5</u> <u>4</u>	9 1	0 Y

9531-122 POWER-SWITCHBOARD OPERATOR (elec. power)

Controls central switchboard in electric-power generating plant to distribute power load among generators according to generator capacity and changing power demands, and to regulate flow and distribution of power from generators to outgoing power lines: Determines number of generators required to meet power demands, using load indicators or by interpreting estimates received from load dispatcher who directs flow of current through power network. Notifies generating room of pending load changes. Adjusts controls to synchronize newly started generating units with units in operation. Observes indicating instruments to determine when generator is synchronized and pulls switch to connect generator output to bus-bar receiving electricity from group of generators. Closes switch to disconnect generators from bus-bar as power demand decreases or when equipment malfunctions. Observes switchboard meters, signal lights and recording instruments to verify that electric power is flowing from power plant properly, and that correct voltage is being maintained. Compiles records of all switching operations and of load conditions on generators, lines, and transformers. May operate switches to control distribution of power over feeder circuits between generating stations and substations. May control feeder circuits to production or process equipment in industrial establishment which produces its own power. May control automated power plant having centralized control room and regulate all power generating equipment.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: 1 5 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u> <u>4</u>	1 9	0 Y

9531-123 POWER-SWITCHBOARD-OPERATOR APPRENTICE (elec. power)

Performs duties of **9531-122 POWER-SWITCHBOARD OPERATOR (elec. power)** on a progressive basis according to training schedule. See also definition for term title, **02-010 APPRENTICE (any ind.)**.

9531-126 POWER-SWITCHBOARD OPERATOR, CHEMICAL (chem., n.e.c.)

Controls electrical switching and power supply equipment, such as converters, rectifiers, transformers and generators, to provide, distribute and maintain electrical power for production processes in chemical plant:

Activates switches on control panel to regulate converters and rectifiers that convert alternating current to direct current, and route it

to electrolytic-cell department, according to production demand. Observes demand meters, gauges and recording instruments. Adjusts controls to ensure efficient power distribution, utilization, and equipment operation. Monitors instrumentation and warning lights for indications of malfunction, damage to equipment or disruption of service. De-energizes malfunctioning circuits or tags equipment due for maintenance or repair to ensure safety of maintenance crew and verifies that all workers are clear of repaired equipment before re-energizing. Takes appropriate action to bring in alternate circuits, or switches to emergency power, in case of power disturbance. Compiles operational records from chart and meter readings, covering power demands and consumption, malfunctions and repairs to equipment. Maintains liaison with processing departments and hydro system suppliers to co-ordinate electrical service.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: 1 6 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u> <u>4</u>	9 1	Y 0

9531-130 POWER-CONTROL-ROOM OPERATOR (elec. power)

Controls generation and distribution of electrical power from in-plant equipment serving an individual industrial or other establishment, and maintains equipment in efficient and safe operating condition: Operates switching controls and observes indicating and recording instruments to ensure adequate flow of electric power to meet demand and to prevent overloading of generating and distributing system. Inspects control-room equipment periodically to detect deterioration or malfunction. Cleans and lubricates mechanical and electrical components as necessary. Compiles records of power consumption, equipment performance, and repairs. Places orders for and supervises delivery of parts and fuel.

GED: 4 SVP: 7 PA: M 3 4 6 EC: 1 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u> <u>5</u>	9 1	Y 0

9531-134 NUCLEAR-REACTOR OPERATOR (elec. power)

Controls nuclear-reactor and related steam turbines and generators to generate electrical power for distribution: Operates controls to start and shut down reactor and to regulate power. Monitors control board instruments for flux level, coolant temperature, rate of flow, control-rod position and other factors that affect power level within reactor, and initiates action in accordance with instructions and standard procedures. Communicates with other nuclear-reactor operators, chemical units and maintenance crews on field duties throughout the plant, using radio telephone or intercommunication system, to direct their activities and co-ordinate operation of auxiliary equipment, such as pumps, compressors, switchgear and water-treatment systems. Manipulates controls and observes control-panel indicators to test process sub-systems and protective devices. Acknowledges alarms, analyses problems and initiates rectification actions with field operators. Maintains log of activities of shift crew.

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May assist in preparing, transferring, loading and unloading nuclear fuel elements.

GED: 4 SVP: 7 PA: M 2 4 5 6 7 EC: I 6 DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 3 4 4 4 5 4	9 1	Y 0

9531-138 HYDRO-ELECTRIC-STATION OPERATOR (elec. power)

Controls electrical generating units and related mechanical and hydraulic equipment at hydro-electric generating station. Operates switchboard and manual controls to control water, turbines, generators, and auxiliary hydro-electric generating station equipment and distributes load among generating units, according to power demands. Operates feeder switchboard to control distribution of electrical power over feeder circuits between generating station and substations. Records control-board meter and gauge readings, inspects operating equipment, and notifies supervisor of conditions indicating abnormal equipment operation. Opens and closes power switches to protect safety of crews working on power lines and switches.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: I 5 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 3 4 4 4 5 4	1 9	0 Y

9531-142 TURBINE OPERATOR, STEAM (elec. power)

Operates steam-driven turbogenerators in conventional or nuclear generating station:

Performs duties similar to those of **9533-122 STATIONARY ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operating steam-driven turbogenerators. Starts turbine or directs helpers to do so. Opens throttle of turbine to start rotor spinning, then partially closes it to allow turbine to run at slow speed for a predetermined time. Notifies switchboard operator when ready to run turbine at full working speed. Increases speed of turbine and ensures that automatic regulator maintains correct working speed. Notifies steam control operator and switchboard operator when turbine can be synchronized with other power units in plant or system. Observes gauges and meters to determine if turbine can handle load and is operating efficiently. Shuts down turbines on order to decrease power output, or to cut out malfunctioning units, by pulling valve to shut off steam supply and closing throttle. Periodically records instrument readings. May operate standby diesel-electric generating units to supply auxiliary electric power.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: I 5 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 4 4 4 5 5	1 9	0 Y

9531-144 FIELD OPERATOR, NUCLEAR-GENERATING STATION (elec. power)

Performs field duties to assist in operation of nuclear reactor, steam turbine, generator, and associated systems and equipment:

Patrols work area, and monitors instruments, equipment and systems to ensure safe and efficient operation. Operates auxiliary equipment such as pumps, compressors, valves, switchgear, and water treatment systems under direction of control-room operator. Prepares and performs isolations in order to take equipment out of service, and returns equipment to service upon completion of isolations. Manipulates controls and observes control-panel indicators to test process subsystems and protective devices. Acknowledges alarms, analyzes problems, and initiates corrective action in consultation with control-room operator. Trains subordinate personnel. Assists with preparation, transfer, loading, unloading, and storage of nuclear-fuel elements. Helps other workers to move heavy-water drums, and assists with sampling, cleaning, up-grading and introduction of heavy water to various systems. Prepares log of activities of shift crew. Carries out safety procedures related to detection and control of ionizing radiation and toxic gas levels.

GED: 4 SVP: 7 PA: L 2 3 4 5 6 EC: I 6 7 DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 4 4 3 5 4	9 1	Y 0 1

9531-146 CENTRAL OFFICE POWER ROOM OPERATOR (telecom.)

Operates and maintains central-office power-room equipment used to furnish or transmit electrical power for telecommunications installations:

Operates, maintains, and regularly verifies efficiency of central-office equipment, such as motors, generators, storage batteries, rectifiers and motor-driven apparatus, to prevent or minimize service interruptions. Analyzes malfunctions, using electrical meters, testing devices, and diagrams. Places replacement batteries on racks. Services or repairs equipment and replaces parts, using hand and power tools.

GED: 4 SVP: 6 PA: M 3 4 7 EC: I 5 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 3 3 3 4 4	9 1	Y 0

9531-150 SUBSTATION OPERATOR (elec. power)

Controls equipment, such as current converters, voltage transformers, and circuit breakers, that regulate flow of electricity through substation of electric power system and over distribution lines to consumers:

Records readings of switchboard instruments to compile data concerning quantities of electric power used for substation operation and amounts distributed from station. Communicates with power dispatcher to report amount of electricity received into substation, and to receive switching instructions. Observes switchboard instruments to detect indications of line disturbances, such as grounded, shorted or open circuits. Pulls circuit breaker switch or pushes buttons to interrupt flow of current in disturbed line preparatory to repair, and to connect alternate circuit to carry load of de-energized lines. Periodically records temperature of transformers. Calculates average and peak load conditions from electric recording device. May compile periodic report of load variations for system planning purposes. May locate and replace defective fuses and switches, using testing device,

and hand tools. May control several remote substations through central automatic switchboard.

GED: 4 SVP: 5 PA: S 4 5 6 7 EC: I DPT: 4 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 <u>3</u> <u>3</u> <u>4</u> 4 4 5 4	1 9	0 Y

9531-154 FEEDER-SWITCHBOARD OPERATOR (elec. power)

Operates switchboard to control distribution of electric power over feeder circuits between generating stations and substations of power system:

Actuates control switches, to cut out or bring in feeder circuits as instructed by dispatch centre. Observes control board indicators to detect circuits that have been automatically cut off due to line disturbances, and operates controls to connect alternate feeder line. Warns other shift operators by attaching warning tags to controls of defective circuits. Telephones dispatch center about disturbances and necessary corrective measures. Records meter readings indicating transformer temperatures, feeder voltages and frequency, at regular intervals on log sheet. May service large storage batteries maintained as emergency power source for control-room lighting and switchgear operation, by checking battery voltages and specific gravity of electrolyte, and taking appropriate corrective action.

GED: 3 SVP: 6 PA: L 4 5 7 EC: I DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 <u>3</u> <u>3</u> <u>4</u> 4 4 5 4	1 9	0 Y

9531-158 RECTIFIER OPERATOR (elec. power)

Controls rectifiers and auxiliary equipment to convert high-voltage alternating current into direct current:

Reads control panel meters and adjusts switches and rheostats to maintain amperage and voltage of input and output currents at specified values. Records meter readings on log sheet. Performs regular inspections of operating equipment to detect malfunctions. Shuts off unit when meter reading, bearing temperature or unusual noise indicates malfunctioning unit, and redistributes load among other units. Tests faulty rectifier to determine cause of trouble, using testing equipment, such as oscilloscopes, voltmeters and test lights. Isolates and locks out faulty equipment to create safe conditions for repair crew. Performs minor repairs, and calls maintenance crews to make more complex tests and repairs.

GED: 3 SVP: 5 PA: L 4 6 7 EC: I 5 6 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 <u>3</u> <u>3</u> <u>4</u> 4 4 5 4	1 9	0 Y

9531-162 POWERHOUSE RUNNER (elec. power)

Compiles gauge readings and performs other duties, as directed, in electric-power-generating plant:

Records readings of gauges and meters on switchboards and panels at various locations in plant. Verifies temperatures and coolant flow in

transformers, and feels mechanical equipment to detect overheating. Opens and closes manually-operated switches throughout plant, as instructed, to regulate flow of electric power. Cleans and lubricates mechanical and electrical equipment, and reports meter fluctuations, abnormal sounds, overheating, abnormal furnace conditions and other evidence of malfunction.

GED: 3 SVP: 4 PA: M 4 5 6 7 EC: I DPT: 3 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 <u>3</u> <u>3</u> <u>4</u> 4 4 4 4	1 3	Y 2

9531-166 SUBSTATION-OPERATOR, HELPER (elec. power)

Helps operator to control flow of electricity through transmission lines and operate substation equipment:

Takes part in observing instruments and monitors automatic switching equipment, and alerts operator of malfunction. Sets controls, as specifically directed, to interrupt flow of current in faulty transmission line preparatory to repair, and to connect alternate circuit to carry load. Prepares reports on transformer temperatures or other data obtained from electric recording instruments, as specified by operator. Helps in general maintenance and cleaning of equipment, and station. May replace components such as defective fuses and switches. See also definition for term title, **02-160 HELPER (any ind.)**.

GED: 2 SVP: 4 PA: M 4 EC: B DPT: 5 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> <u>4</u> 4 4 4 4	3 1	2 Y

9531-199 OTHER POWER STATION OPERATORS

This residual group includes power station operators not presently classified in Unit Group 9531.

9533-STATIONARY ENGINE AND AUXILIARY EQUIPMENT OPERATING AND MAINTAINING OCCUPATIONS

This unit group includes occupations concerned with the operation and maintenance of stationary engineering equipment, such as steam engines, air compressors, generators, motors, turbines, air conditioning units, refrigeration equipment and steam boilers to provide utilities such as light, heat, climate control or power for buildings, industrial processes, work sites or other installations.

9533-110 BOILER OPERATOR (utilities, n.e.c.)

Controls one or more stationary or portable high-pressure boilers that supply steam for heat, power generation or industrial processes:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL (elec. power; utilities, n.e.c.)**, but specializes in operation of boilers. Actuates valves to fill and maintain required level of water in boilers. Starts fans and adjusts dampers to supply combustion air. Sets controls to regulate flow of fuel such as, gas, oil or pulverized coal

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into burner, or transfers coal or other solid fuel into fire-box. Observes and interprets readings of gauges, panel board instruments and recorder charts. Adjusts controls of equipment to maintain specified operating temperatures and pressures, and to ensure efficient combustion with minimal pollutants. Adds specified quantities of chemicals, to condition boiler feedwater. Records specified operating data in log book. May perform maintenance tasks such as, servicing air compressors of pneumatic control systems, cleaning boilers, and tightening pipes and fittings, using hand tools.

GED: 4 SVP: 7 PA: M 2 3 4 7 EC: I 3 5 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	Y 0

9533-111 POWER ENGINEER, AUTOMATED CONTROL (elec. power; utilities, n.e.c.)

Controls automated power plant equipment used to supply heat, light, power, air conditioning, water, waste treatment and other utility services for buildings or industrial processes:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operating power plants equipped with automated or computerized control systems. Receives briefing concerning operation of plant and reviews logbooks and status reports at commencement of work shift. Observes panel board instrumentation and recorders, or selects and enters codes into keyboard of computer terminal to obtain video displays and printouts of data regarding functioning of system. Monitors operating parameters for items such as, temperatures, pressures and flows of steam, air, water, fuel, refrigerants, exhaust gases and effluents, and analyzes information presented. Regulates system by entering coded instructions into computer terminal, or by adjusting remote controls for boilers, generators and other plant equipment such as, pumps, valves, motors, compressors and blowers. Tours building and power plant to observe system during operation and ensure efficient energy management practices are applied. Checks thermostats, verifies humidity readings, tests sump pumps, checks filters, dampers and belts, and records irregularities. Starts and tests standby diesel generators and emergency equipment such as, sprinklers and alarm systems. Diagnoses faults in system operation and makes or arranges for repairs or replacement of defective units. Completes scheduled preventive maintenance tasks such as, inspection, cleaning and lubrication of machinery and changing of filters. Makes entries in operating logs and maintenance records and prepares failure reports.

GED: 4 SVP: 7 PA: M 3 4 6 7 EC: I 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	O Y

9533-112 ELECTRICAL GENERATING SYSTEM TECHNICIAN (military)

Operates, repairs and maintains portable and stationary electrical power generating plants on Canadian Forces Bases:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Monitors lights and gauges, and adjusts controls and switches to operate electrical-generating plants and control systems. Installs cooling, fuel, lubrication, intake and exhaust systems, and control panels of auxiliary and stationary-power plants

and constructs plant foundations, using hand, power and electrical tools and test equipment. Tests, repairs and maintains diesel engines, gas turbines, alternators, switch gear, controls and cooling systems according to drawings, wiring diagrams and technical orders. Operates and maintains shop equipment such as machine lathes, milling and drilling machines, welding equipment and hydraulic presses. Requisitions and accounts for equipment, material and spare parts. Drives vehicles up to 3 tons in size.

GED: 4 SVP: 7 PA: M 2 3 4 6 7 8 EC: I 3 5 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>3</u> <u>3</u> <u>5</u> <u>4</u>	9 1	O Y

9533-114 REFRIGERATION OPERATOR (utilities, n.e.c.)

Controls freon, carbon dioxide or ammonia gas cooling systems used to provide refrigeration for establishments such as, food processing plants, dairies and artificial ice arenas, for air conditioning in buildings, and for industrial processes:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operation of refrigeration and cooling systems. Opens or adjusts valves and actuates controls to start motors, pumps, compressors, coolers and auxiliary equipment of refrigeration system. Observes instruments such as, pressure gauges and thermometers, and checks operation of equipment. Adjusts thermostats, limit switches and other control devices to maintain optimum operating conditions and temperatures. Enters temperature and pressure data on log sheets, or verifies accuracy of recorder chart readings. Defrosts, cleans and lubricates equipment and performs other tasks to maintain system in good running order, using hand tools. May order replenishment stocks of refrigerant and other supplies.

GED: 4 SVP: 7 PA: M 2 3 4 EC: I 5 6 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	O Y

9533-116 STATIONARY ENGINEER (military)

Operates central-heating plants in Canadian Forces buildings:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Observes and analyzes meters, gauges, lights and other instruments, and adjusts controls of high and low pressure steam, hot water, and hot-air heating plants. Listens to and observes operation of equipment to detect or isolate malfunctions and to prevent damage to machinery. Maintains, repairs, overhauls and tests heating plants, portable boilers, feed water softening equipment and fuel handling equipment, using hand and power tools, testing and calibration equipment, and hoisting and lifting equipment.

GED: 4 SVP: 7 PA: M 2 3 4 6 7 EC: I 3 4 5 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>3</u> <u>5</u> <u>4</u>	9 1	O Y

9533-118 DIESEL ENGINE OPERATOR, STATIONARY
(utilities, n.e.c.)

Operates stationary diesel engine to drive electric generators, pumps, compressors or other equipment:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operating stationary diesel engine. Starts auxiliary air compressor and opens air valve and diesel fuel feed valve to start engine. Stops air compressor after engine combustion commences and adjusts engine controls to obtain desired operating speed. Checks pressure and temperature gauges to ensure proper functioning of lubrication and cooling systems. Monitors operation and output of electric generators, water pumps, air compressors or other driven equipment to detect malfunctions. Lubricates bearings and mechanical parts, and makes minor adjustments or repairs, using hand tools. May operate stationary engine or turbine fuelled with natural gas.

GED: 4 SVP: 7 PA: M 3 4 EC: I 5 6 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	0 Y

9533-122 POWER ENGINEER, GENERAL (elec. power; utilities, n.e.c.)

Operates and maintains power plant equipment such as, stationary engines, boilers, turbines, pumps, compressors, motors and generators, refrigeration and air conditioning units and water or waste treating systems used to provide heat, light, power, ventilation and other utility services for buildings or industrial processes:

Starts equipment, observes meters, gauges and warning lights, and adjusts levers, valves and switch controls to obtain specified operating conditions and output. Analyzes temperatures, pressures and flow rates of fuel, water and steam, and readings of other instruments to ensure efficient operation of equipment or combustion. Monitors instruments and adjusts or calibrates controls to maintain prescribed conditions within systems. Listens to and observes equipment during operation to detect or isolate malfunctions and prevent failures. Lubricates and adjusts equipment, cleans or changes filters and performs other preventive maintenance tasks or minor repairs, using hand tools. Tests standby power generators and other emergency equipment. Writes entries in logbook and compiles records of instrument readings, hours of operation, fuel and power consumption and reports on equipment performance and serviceability. May control automated power plant equipment from central location. May be designated according to type of equipment operated.

GED: 4 SVP: 7 PA: M 2 3 4 6 7 EC: I 3 4 5 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	Y 0

9533-123 POWER-ENGINEER APPRENTICE (elec. power; utilities, n.e.c.)

Performs duties of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.) on a progressive basis according to training schedule. See also definition for term title, **02-010 APPRENTICE** (any ind.)

9533-124 STEAM OPERATOR (elec. power)

Controls stationary high-pressure boilers and large bulk steam-distribution systems to supply steam heat for production of heavy water:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.) to operate boilers, auxiliary gas-turbine generators, and related electrical switching equipment. Actuates valves to fill boilers with water, and to maintain required level. Moves controls to regulate flow of fuel. Observes gauges and moves controls to maintain specified flow, temperature and pressure of steam, and to ensure efficient combustion and minimal pollutant emission. Tests boiler-feed water, and adds chemicals to condition water. Tightens pipe fittings, using hand tools. Operates incinerator chamber to reduce volume of combustible radioactive waste. Disposes of radioactive ash according to government regulations. Carries out safety procedures related to detection and control of ionizing radiation and toxic gas levels. Trains subordinate personnel. Operates sewage-treatment plant, if required.

GED: 4 SVP: 7 PA: L 2 3 4 EC: I 6 DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u>	9 1	Y 0

9533-126 BOILER OPERATOR, PULVERIZED COAL (elec. power; utilities, n.e.c.)

Operates coal pulverizing machines and pneumatic equipment that feeds pulverized coal into burners of boilers in electricity generating or industrial plants:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operation of boilers which burn pulverized coal. Ascertains amount of fuel required by each unit in operation. Sets mechanical controls and switches of conveyors and pulverizers to regulate feed rate of coal, and starts air blowers that blow pulverized coal into burners. Monitors air gauges and operation of coal feed to ensure mix of proper proportions of air and coal. Observes pressure and temperature indicators and adjusts equipment controls to ensure efficient combustion and minimal emission of pollutants.

GED: 4 SVP: 7 PA: M 4 EC: I 3 5 6 7 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u> <u>5</u> <u>5</u>	9 1	0 Y

9533-128 BUILDING SYSTEMS TECHNICIAN (utilities, n.e.c.)

Provides and maintains heat, power and other utility services required by tenants in commercial, institutional or residential buildings:

Monitors operation and use of heating, air conditioning, lighting, power, water, sewage and other building facilities, to ensure needs of tenants and management are safely and efficiently met. Tours building periodically to ensure temperatures and ambient conditions are satisfactory, or obtains status reports regarding conditions and functioning of equipment by entering selected codes into keyboard of computer terminal. Inspects and checks operation of mechanical equipment by observing, listening to and touching apparatus to detect deterioration or malfunction before failures occur. Lubricates bearings

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and moving parts, changes belts and filters and performs other scheduled maintenance tasks on building equipment. Tests standby lighting or power generators, fire protection devices and other emergency equipment. Makes minor repairs such as, fixing faucets and toilets, replacing light bulbs and repairing or replacing locks and knobs on doors, using hand and power tools. Checks quality of building cleaning, records deviations and initiates corrective measures. Ensures removal of garbage, ice and snow from entrances and satisfactory upkeep of grounds around building. Receives trouble calls from tenants regarding building operation, maintenance and security, and takes corrective action. Records details of maintenance requests, work done, purchases and operating expenses and keeps up-to-date logbooks on building and equipment. Makes recommendations regarding need for major repairs to building or equipment. Recommends improved energy conservation methods or other practices to improve operating efficiency. Meets with prospective tenants, contractors and maintenance crews and provides appropriate assistance.

GED: 4 SVP: 6 PA: L 3 4 5 6 7 EC: I 6 DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 4 4 4 4 5	9 1	0 Y

9533-130 COAL GAS EXHAUST OPERATOR (petrol. & coal prod.)

Operates turbo blower or steam driven exhausters and pumps to draw gas, resulting from baking of coal, through coolers and into by-product manufacturing or benzol refining plants:

Reads pressure and vacuum gauges, thermometers and flowmeters to verify operation and condition of equipment. Turns valves or actuates controls to regulate speed of exhausters and pumps, and maintain specified temperatures and pressures. Monitors levels of by-products in recovery equipment and storage tanks. Directs loading of tank cars or trucks for removal of products. Records information such as, operating temperatures and pressures and quantities of material recovered. Cleans and maintains equipment.

GED: 3 SVP: 6 PA: L 2 4 5 6 7 EC: I 3 5 6 DPT: 5 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 4 5	9 1	0 Y

9533-134 COMPRESSOR OPERATOR, CAISSON (construction)

Operates and maintains diesel or gasoline powered compressor system to supply compressed air for pneumatic caisson:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operation of compressors that pump air into pressurized underwater working chamber of caisson. Observes gauges indicating air pressure in caisson and adjusts engine speed and air control valves to buildup and ensure sufficient pressure is maintained to prevent water entering into caisson, and to provide fresh breathing air conditions under which workers can perform their duties without discomfort at varying depths. Monitors engine and compressor operation and listens to equipment for evidence of malfunction. Lubricates and services system components and makes adjustments or repairs, using hand tools. May operate several

compressor units to ensure continuous supply of air to caisson or to worker's decompression chamber.

GED: 3 SVP: 6 PA: L 4 6 EC: B 5 6 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 5 5	9 1	0 Y

9533-138 MOBILE GENERATOR OPERATOR (elec. power)

Operates mobile gasoline or diesel engine driven generators to furnish electrical power at work locations:

Positions generating unit, fills fuel tank and ensures oil and coolant are at specified levels. Starts engine and adjusts controls to provide constant flow of electrical power to meet load requirements. Observes electrical meters to ensure proper output of generators. Listens to engine and visually checks for fluid leaks, loose parts and other faults. Cleans fuel and air filters and fuel injections, and attends to routine servicing tasks. Makes adjustments and minor repairs to equipment, using hand tools.

GED: 3 SVP: 5 PA: M 4 6 EC: O 5 6 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 5 5	9 1	Y 0

9533-142 AUXILIARY EQUIPMENT OPERATOR (elec. power)

Controls and maintains pumps, fans, blowers, condensers, evaporators, compressors, coal pulverizers or other auxiliary equipment in power generating plant:

Performs duties similar to those of **9533-122 POWER ENGINEER, GENERAL** (elec. power; utilities, n.e.c.), but specializes in operation of auxiliary equipment in power generating plant. Opens and closes valves in prescribed sequence upon receipt of signal from operators of turbines, generators and boilers to start or shutdown units. Checks and records instrument readings to verify that units are operating at specified capacity. Observes warning lights and listens for sounds from operating machinery to detect mechanical malfunctions. Investigates causes of equipment failures, and makes minor repairs or adjustments. Reports need for major repairs to equipment and assists maintenance staff in completion of repair work. Cleans and lubricates equipment.

GED: 3 SVP: 5 PA: M 2 3 4 6 EC: I 5 6 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 3 4 5	9 1	0 Y

9533-146 AIR COMPRESSOR TENDER (any ind.)

Tends steam, electric, gasoline or diesel driven air compressor that supplies air under pressure for pneumatic tools, hoists or other equipment:

Starts power unit to buildup required air pressure in system. Adjusts controls or sets automatic regulator to maintain continuous supply of air to equipment. Observes pressure, temperature and other gauges and adjusts controls to ensure efficient operation. Cleans and lubricates equipment and tightens loose parts. Opens valve to drain

water from reservoir and performs other tasks to keep unit in serviceable condition. May drive truck-mounted air compressor to work site and connect pipelines from compressor to pneumatic tools or equipment.

GED: 3 SVP: 4 PA: M 4 EC: B 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 4 4 <u>3</u> 5 5	3 9 1	0 Y

9533-150 BOILER TENDER, LOW PRESSURE (utilities, n.e.c.)

Tends low pressure boilers and auxiliary equipment to supply steam heat for apartment houses, commercial buildings or industrial establishments:

Turns valves or sets and monitors automated controls to fill and maintain required level of water in boiler. Sets and adjusts fuel valves and switches or controls of automated system to regulate flow of gas or oil into burner, or to transfer solid fuel into fire-box. Checks gauges and makes adjustments to fuel and boiler controls to maintain specified temperatures and pressures and ensure efficient combustion. Checks safety valves and piping, and cleans burner, using hand tools. Tends auxiliary equipment such as, air compressor, sump pump and incinerator. Cleans boiler room and heating equipment and removes waste from building.

GED: 3 SVP: 4 PA: M 2 3 4 EC: I 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 5 <u>4</u> 4 <u>3</u> 4 5	3 9 1	0 Y

9533-154 HUMIDITY MAINTAINER (utilities, n.e.c.)

Tends humidifying system and maintains moisture content of air in rooms or departments of storage and processing plants to ensure specified moisture level and distribution:

Computes moisture content of air from hygrometer or chart recorder readings. Sets and adjusts thermostat controls, water valves and air vents to increase or decrease moisture and circulate air. Cleans equipment, using air hose, brushes and rags. Turns valves to drain water from pipes and reservoir. Records humidity readings in log. May replace broken or defective components of humidifying system such as, fans, sprinkler heads, atomizers and pipe sections, using hand tools.

GED: 3 SVP: 3 PA: L 2 4 7 EC: I DPT: 4 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 <u>4</u> 4 <u>4</u> 4 <u>4</u> 3 4 5	3 9 1	2 Y

9533-158 STEAM CLEANING MACHINE TENDER
(construction; utilities, n.e.c.)

Tends one or more portable steam generators used to provide steam for cleaning exposed surfaces of buildings, machinery and industrial equipment:

Connects hose line and electric leads to source of water and electric power. Starts pump to pass water through generator coils. Determines type of cleaning compound or solutions to be applied and fills tanks

accordingly. Turns switch to start burner under steam generator when water coils are full. Adjusts valves to regulate flow of water and cleaning compound through hose line to jet nozzle. Observes pressure gauge to ensure required steam pressure is maintained. Flushes interior of generator coils with scale remover. May operate steam generators to clean buildings, machinery or equipment surfaces.

GED: 3 SVP: 3 PA: M 2 3 4 EC: B 4 6 7 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 5 <u>4</u> 4 <u>3</u> 4 5	3 9 1	2 Y

9533-162 HEATING AND VENTILATION EQUIPMENT TENDER (utilities, n.e.c.)

Tends and maintains ventilating and heating equipment such as, electric motors, fans, pumps, vents, ducts and dampers used in buildings and mines, or for industrial processes:

Sets and adjusts controls to operate fans, electric motors, heating and air purification and circulation equipment. Manipulates switches and levers to regulate speed of fans and to adjust dampers or other devices to control airflow in heating and ventilation ducts. Lubricates fan and motor bearings and moving parts. Cleans deposits of accumulated dust and dirt, carbon, pitch, grease and other materials from fans, screens, vents and ducts, using vacuum cleaner, scraper, hot water and compressed air or steam. Makes periodic inspections of equipment and facility to ensure proper functioning and condition of system. Replaces fan belts and filters, tightens loose fittings, caulked leaks and completes other minor repairs, using hand tools. May maintain emergency standby equipment such as, secondary ventilation system in underground mine workings.

GED: 3 SVP: 4 PA: L 3 4 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 <u>4</u> 5 <u>4</u> 4 <u>3</u> 5 5	3 9 1	2 Y

9533-166 POWER HOUSE HELPER, COAL (utilities, n.e.c.)

Helps operate and maintain coal conveying and other power house equipment used to supply heat or power:

Adjusts and lubricates coal conveying equipment, as directed, using hand tools and lubrication equipment. Shovels coal spillage onto conveyor. Takes coal samples for laboratory analysis. Loads fly ash from dust collector onto trucks or rail cars with suction hose or mechanical loader. Opens and closes floodgates and adjusts valves of ash sluicing system. Cleans, sweeps, washes and paints power house and equipment. Keeps rail tracks on company property clear of spillage and obstructions and attends to other housekeeping in and around power house. Reports to supervisor regarding condition of equipment and material requirements, and on amount of coal or fly ash loaded. See also definition for term title, **02-160 HELPER** (any ind.).

GED: 2 SVP: 3 PA: H 2 3 4 EC: B 5 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 <u>3</u> 4 5	3 1	2 3

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9533-170 POWER ENGINEER HELPER (elec. power; utilities, n.e.c.)

Helps power engineer in the operation and maintenance of stationary steam boilers and auxiliary equipment such as, pumps, compressors and air conditioning systems:

Starts auxiliary equipment, as directed. Opens valves and adjusts regulators, as specified, to control flow of steam or water through pipelines, or to blow sludge and scale from pressure system. Reads gauges to monitor boiler operation. Cleans and lubricates pumps and other equipment. Dusts tubes and removes slag from furnace tubes and brick work of coal fired boilers, using steam or compressed air. Opens drains and washes boilers. Performs maintenance tasks such as, assisting in replacement of packing in valves and repairing pipelines and gauge glasses. See also definition for term title **02-160 HELPER** (any ind.). May be designated according to type of equipment used for function of power engineer aided.

GED: 2 SVP: 3 PA: M 3 4 EC: I 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 4 4 3 4 5	3 1	2 3

9533-174 TEMPERATURE REGULATOR (utilities, n.e.c.)

Monitors thermometers and regulates temperatures in meat coolers, freezers and other refrigerated food storage facilities for conformity with standards:

Tours coolers and freezer rooms periodically and reads wall thermometers. Compares temperature readings with specifications. Adjusts refrigerant valves in coolers, freezers or power room to maintain specified temperatures. Records temperature readings in logbook. May assist in removing snow and ice from pipes, ceilings and walls of freezers.

GED: 2 SVP: 3 PA: L 2 3 4 7 EC: I 2 4 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 4 4 5	3 1	2 3 Y

9533-199 OTHER STATIONARY ENGINE AND AUXILIARY EQUIPMENT OPERATING AND MAINTAINING OCCUPATIONS

This residual group includes stationary engine and auxiliary equipment operating and maintaining occupations not presently classified in Unit Group 9533.

9535-WATER AND SANITATION UTILITIES EQUIPMENT OPERATING OCCUPATIONS

This unit group includes occupations concerned with the purification, treatment and distribution of water; and treatment and disposal of sewage, industrial wastes, garbage or refuse.

9535-110 WATER-PURIFICATION-PLANT OPERATOR (waterworks)

Controls pumping, filtering, and chemical-treating equipment that processes and renders water available for domestic and industrial use: Manipulates switches and moves levers and handwheels to activate valves and turbine or motor-driven pumps that transfer water from source to treatment plant, and from treatment plant to reservoirs and mains. Reads and interprets flowmeters and pressure and water level gauges, and adjusts equipment to regulate water-flow to meet demand. Operates filtering, chlorinating, fluoridating and alum processors to treat water according to results of samples analysis and bacteria count. Activates remotely controlled valves and washwater pumps to backwash and clean filters. Prepares reports and maintains logs concerning water output, utilization of equipment, chemical analysis and consumption of water. May operate special equipment to remove mineral compounds from hard water. May treat water before or after use in industrial processes.

GED: 4 SVP: 7 PA: L 4 7 EC: B DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 3 3 4 4 3 5 5	9 1	0 Y 4

9535-114 SEWAGE-PLANT OPERATOR (utilities, n.e.c.)

Operates treating, sludge processing and disposal equipment in sewage treatment-plant:

Monitors control panel, and adjusts valves and gates that regulate flow of sewage by remote control or manually. Observes variations in operation conditions and interprets meter and gauge readings and test results to determine load requirements. Starts and stops pumps and motors to control flow of raw sewage through settling, aeration and sludge digestion processes. Records meter and gauge readings in operational log. Inspects equipment and directs other workers engaged in routine operations, such as, servicing and cleaning. Takes samples and performs routine laboratory tests on sewage at various stages of processing. May operate and service power generating equipment to provide steam and electricity for plant.

GED: 4 SVP: 6 PA: L 3 4 5 6 7 EC: B 4 6 7 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 3 4 3 3 3 5 5	1 9	0 Y 4

9535-116 WATER, SANITATION AND POL TECHNICIAN (military)

Maintains and controls operation of drinking water supply systems and sewage treatment facilities at Canadian Forces Bases:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Treats water supply, using fluoride and chlorine chemical feeders. Samples and tests water for chemical and bacteriological content in accordance with Provincial and Federal Health regulations. Reads flow and metering devices, operates grit-removal apparatus and pumping systems, and performs water tests to monitor and maintain pollution-control plants. Controls operation of filters, dehydrators, pressure relief valves, pumps and flow and metering devices of bulk petroleum, oil and lubricant (POL) storage systems. Tests water and controls filters, chemical feeders and chlorinators to maintain swimming pool water standards. Maintains,

repairs and tests water supply, sewage treatment and POL systems and associated equipment.

GED: 4 SVP: 6 PA: L 4 7 EC: B 4 6 7 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 4 4 4 4 3 5 4	9 1	0 Y

9535-118 DITCH RIDER (water works)

Controls unit of irrigation system to convey water to farms according to water users' requests or as directed:

Contacts water users to determine quantity of water needed and time and duration of delivery. Computes and requisitions quantity of water required. Directs helper(s) or operates gates, checks or turnouts to start and regulate flow of water into delivery canals. Measures or estimates water diversions from canals to water users, using measuring stick and conversion chart, and records quantities delivered to farms for billing purposes. Drives vehicle and patrols area to detect leaks or obstructions to water flow. Removes debris, makes emergency repairs to structures and fills holes in gates and dams. Writes and submits daily reports outlining daily deliveries, number of users and amount of water used. Maintains report showing water delivered, date and time of deliveries, rate of flow in cubic feet per second, number of acres in parcels of land and gauge readings on canal and reservoir elevations. Requisitions materials, equipment and labour required.

GED: 4 SVP: 4 PA: M 3 4 5 6 7 8 EC: O DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 3 3 3 4 3 3 5	1 9 2	0 5 1

9535-122 WATER-SERVICE DISPATCHER (water works)

Dispatches service crews in response to consumer complaints or reported leaks in water distribution system:

Receives calls from consumers regarding irregularities in water supply or reports of leaks in mains. Consults maps and charts of water distribution system, and determines probable locations and nature of faults. Informs supervisor of difficulties and directs service crews, using telephone or radio, to effect necessary repairs. Compiles records of service calls and action taken. May correct water pressure by increasing pumping rate or raising reservoir level.

GED: 3 SVP: 4 PA: S 4 5 6 7 EC: I DPT: 3 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 4 3 4 4 4 5 5	2 3	2 5

9535-126 PUMP-STATION OPERATOR (water works)

Controls pumping equipment to transfer raw water to treatment plant, or processed water to distribution systems for domestic and industrial use:

Opens and sets valves and controls. Manipulates switches, levers and handwheels to open valves, and start and operate pumps that transfer raw water to treatment plant, or processed water to consumer. Reads flow meters, and pressure and water level gauges and makes computations to determine need for regulating flow of water to meet demand.

Repairs and adjusts equipment, using hand tools and lubricates moving parts. Writes reports and maintains logs concerning water output, and utilization and serviceability of equipment. Conducts standard purity tests or provides water samples for laboratory testing and analysis. May operate equipment to treat or add chemicals to water.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 4 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 4 3 3 3 4 3 5 5	9 1	0 Y

9535-130 BASIN TENDER (water works)

Tends and maintains desilting basin that removes silt from water entering irrigation system:

Reads gauges of pumping system to ensure that adequate water pressure is maintained and starts additional pumps when necessary. Visually inspects sluice screens of clarifiers to detect clogged valves and flushes valves to clear them, using high pressure hose. Inspects and repairs pumps and corrosion protection system. Removes trash from slots of influent channels, using steel rake. Removes sand and silt from ends of channels, using high pressure hose. Lubricates machinery. Records malfunctions and corrective action taken. Cleans basin area, pilot houses and equipment. Patrols dam area as precaution against fire, trespassing and property damage. Reports need for major repairs to maintenance crew.

GED: 3 SVP: 4 PA: M 3 4 7 EC: B DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 3 4 4 4 3 4 5	3 1 9	0 2 Y

9535-134 WATER-GATE OPERATOR (water works)

Controls gates and valves in aqueduct and dam to regulate flow of water, to maintain reservoir at specified level to supply irrigation water, and exercise flood control:

Moves levers, wheels or electrical controls to open gates and valves that regulate water flow. Monitors gauges and meters to ensure required degree of pressure to maintain specified water level in reservoir. Records changes in water level, turbidity, temperature and rate of flow. Lubricates equipment and performs minor repairs and adjustments to maintain operating efficiency, using hand and power tools. Patrols watershed area on foot, by boat or with vehicle, to inspect equipment, assess any unserviceability, and prevent trespassing. Tends heating apparatus used to prevent valves and gates from freezing. Spreads copper sulphate or other chemical on water to minimize growth of algae and other organic matter.

GED: 3 SVP: 4 PA: M 4 7 8 EC: B 6 DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 3 4 3 3 3 3 4	9 1	0 Y

9535-138 SEWAGE-PROCESSING-EQUIPMENT TENDER (utilities, n.e.c.)

Tends pumps, conveyors, blowers, chlorinators, filters and other equipment used to process sewage or industrial waste by performing

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any combination of the following duties:

Clears coarse material and other obstructions from bar-screens, manually or by means of mechanical rakes, to maintain flow of influent through initial screening process. Monitors flowmeters and gauges, and refers to charts to determine operating efficiency of equipment. Adjusts valves to control and regulate flow of sewage through settling tanks where sludge is separated by sedimentation. Opens air, steam and hot water valves to aerate effluent and control temperature in sludge digestion tanks. Checks temperature of mechanical equipment and lubricates bearings. Removes and cleans screens, using hose and brushes. Scrubs processing tanks and walkways, using detergents and chemicals. Cleans precipitates, sludge and trash from sumps and catch basins, using electric pumps, scrapers and shovels. Takes test samples and maintains process reports. May process industrial waste to remove materials for disposal or reclamation and re-use.

GED: 3 SVP: 3 PA: M 2 3 4 EC: B 4 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 4 <u>3</u> 4 <u>4</u> 4 3 5 5	1 3 9	2 3 Y

9535-142 INCINERATOR-PLANT TENDER (utilities, n.e.c.)

Tends equipment to burn garbage or other refuse in incinerator plant: Directs truck drivers in dumping waste into furnace feeder. Directs other workers to load material into furnace burner. Starts forced-air draft blower and turns control to admit gaseous or other fuel into furnace. Lights furnace, using ignition switch, pilot light or match. Observes and adjusts combustion control devices, such as pyrometers, drafts and burners to maintain temperature and obtain efficient combustion. Moves levers to drop ashes through combustion chamber grates. Rakes noncombustible material and clinkers from fire grates. Turns waterline valve to sprinkle and settle ashes. Moves controls to unload ashes and noncombustible materials from overhead hoppers into truck, or opens door to drop ashes into truck. May maintain equipment and repair items, such as firebrick, grates, and conveyors. May record, and receive fees for rubbish burned.

GED: 2 SVP: 3 PA: H 3 4 5 6 7 EC: I 3 6 7 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 <u>4</u> 5 <u>4</u> 4 3 5 5	9 3 1	2 3

9535-146 WATER-INTAKE TENDER (elec. power; water works)

Opens, closes, and cleans water intakes at hydroelectric or waterworks installations to prevent blockage:

Turns handwheels to close water-intake and to open alternate water-intake preparatory to cleaning screens. Removes accumulated logs, ice, weeds, fish, silt and driftwood from screen or rack, using chains, electric hoist, crowbar, rake, and cant hook. May lubricate and clean machinery in plant and assist in erecting scaffolds, and disassembling and moving heavy equipment.

GED: 2 SVP: 2 PA: M 2 3 4 EC: B 5 6 DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 5 4 <u>4</u> 5 <u>4</u> 4 3 5 5	9 3 1	2 3

9535-199 OTHER WATER AND SANITATION UTILITIES EQUIPMENT OPERATING OCCUPATIONS

This residual group includes water and sanitation utilities equipment operating occupations not presently classified in Unit Group 9535.

9537-PUMPING AND PIPELINE EQUIPMENT OPERATING OCCUPATIONS

This unit group includes occupations concerned with operating pumps, valves and metering equipment, and controls to regulate pressure and flow of materials, such as, oil and natural gas, through pipeline transmission and local distribution systems; transferring petroleum, chemicals or other materials between processing and storage areas; compressing, liquefying and recovering gases, such as oxygen, nitrogen or natural gas, for industrial or domestic use; and performing related duties.

9537-110 DISPATCHER, OIL (trans., n.e.c.)

Controls flow, and routes crude oil through pipeline system from point of origin to delivery points, such as terminals, ships, refineries, and tank farms, according to delivery schedules:

Studies delivery schedules and computes data relating to crude oil movement, based on pumping and delivery rates, temperatures, pressures, specific gravity, sediment and contamination. Selects and actuates appropriate controls on electronic remote-control panel to transfer oil to meet delivery schedules and contract specifications. Coordinates activities of field workers at pipeline terminals, pumping stations and tank farms, using telephone and radio to pass on information, such as, pumping rates and routing, and gauging or testing instructions. Prepares reports and records concerning stock and storage capacity, quantities of oil moved or to be moved, and serviceability of control, pumping and pipeline equipment.

GED: 4 SVP: 7 PA: S 5 6 7 EC: I DPT: 1 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> 4 <u>3</u> 4 4 4 5 5	9 1	0 Y 4 1

9537-114 COMPRESSOR OPERATOR, GAS PROCESSING (chem., n.e.c.; oil & gas; utilities, n.e.c.)

Operates steam or internal-combustion engines and gas compressors used to compress or recover gases, such as, butane, nitrogen, hydrogen, and natural gas:

Performs duties similar to those of 9533-114 STATIONARY ENGINEER, GENERAL (elec. power; utilities, n.e.c.) but specializes in operation of gas compressors. Moves controls and turns valves to start compressor engines, pumps and auxiliary equipment. Monitors meters, gauges and recording-instruments to maintain specified temperature, pressure, and flow of gas, steam, water and air through system. Observes and listens to operation of equipment to detect malfunctions. Records instrument readings and operational changes. May operate purification tanks (scrubbers) to purify air or by-product

gases. May tend pumps to mix specified amounts of acids and caustics with water for use in purifying gases.

GED: 4 SVP: 7 PA: M 2 3 4 7 EC: B 5 6 7 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 4 4 4 5 5	9 1	0 Y

9537-118 GAS DISPATCHER (utilities, n.e.c.)

Co-ordinates flow of natural gas through pipelines from sources of supply to ensure adequate volume and pressure to meet demand of industrial, urban or rural distribution systems:

Calculates gas pressure and volume adjustment necessary to meet requirements based on corrected gas temperatures and pressures and weather and consumer-demand records. Notifies compressor station to increase or decrease pressure according to calculated requirements. Directs adjustments in gas flow from suppliers into system to maintain specific pressure and volume in pipelines. Compiles operational records concerning gas pressure and volume recorded by distant compressor stations. Relays emergency information acquired from office maps and records to maintenance crew, using radio telephone. May actuate controls of central control panel to regulate flow of gas and maintain specified pressure in pipelines.

GED: 4 SVP: 6 PA: S 5 EC: I DPT: 1 6 8

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 4 4 4 4 4 5 5	9 1	0 Y 4 1

9537-122 PUMP OPERATOR (petrol. & coal prod.)

Operates pumps and manifold systems to circulate water and chemical solutions, or crude, semiprocessed or finished petroleum products, through processing areas to storage and shipping departments of refinery:

Reads operating schedules, and plans movement of products through pipe system to various plant areas, utilizing knowledge of interconnections and capacities of pipelines, valve manifolds, pumps and tank capacity. Synchronizes activities with other plant units to assure continuous flow of products to specified destinations with minimum contamination between products. Starts pumps and observes pressure and flow meters. Turns valves and handwheels to regulate pumping speeds. Opens and closes pipeline and tank valves according to schedule. Observes operation of pumping equipment to detect malfunction or leakage. May record operating data, such as, type and quantity of products pumped.

GED: 4 SVP: 6 PA: M 4 5 6 EC: B 5 6 DPT: 4 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 3 4 4 4 4 4 5 5	9 1	0 Y

9537-126 GAS-LIQUEFACTION-AND-REGASIFICATION-PLANT OPERATOR (utilities, n.e.c.; oil & nat. gas)

Controls operation of compressors, scrubbers, evaporators, and refrigeration equipment that liquefy natural gas to facilitate storage and reconvert it into gaseous form for use when required:

Manipulates valves that control flow of gas through scrubbers, which remove gaseous impurities, water and odorants, and through various stages of compression and refrigeration until gas is liquefied and transferred into storage tanks. Starts pumps and other equipment that draw liquid gas from storage tank, pass liquid through several heated pressure reduction stages until it is re-gasified, and feed gas through flowmeters into distribution pipes. Monitors meters, pressure and temperature gauges, and adjusts controls and valves to regulate pressures, temperatures and engine speeds. Adjusts and makes minor repairs to plant equipment, using hand tools. Compiles reports on quantity of gas processed, stored and consumed, and on serviceability of equipment. May fill individual cylinders of various sizes for supply of bottled gas, or tank truck for bulk distribution of liquid gas.

GED: 4 SVP: 6 PA: M 2 4 7 EC: B 5 6 7 DPT: 5 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 3 3 4 4 4 3 5 5	9 1	0 Y

9537-130 PUMPER, OILFIELD (oil & nat. gas)

Pumps or controls natural flow of oil or gas from wells in oilfield: Starts pumps and opens valves to pump oil or natural gas from wells into storage tanks. Starts compressor engines and diverts oil from storage tanks into compressor units and auxiliary equipment to recover natural gas from oil. Opens valves to return compressed gas to bottoms of specified wells to repressure them and force oil to surface. Operates engines and pumping units from central power plant to shut off wells according to production schedule and to switch flow of oil or gas into unfilled storage tanks. Reads tank gauges and pump meters, and maintains production records. Performs routine maintenance on pumping and metering equipment. May drive vehicle to attend pumps and related equipment in oilfield.

GED: 3 SVP: 7 PA: L 4 EC: O 6 7 DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 3 4 4 4 4 4 5 4	9 1	0 Y

9537-134 GAS-PRESSURE REGULATOR (utilities, n.e.c.)

Controls volume and pressure in gas distribution system by making pressure adjustments and maintaining governors, valves and odorizers to ensure adequate gas supply to meet customer demands:

Adjusts governors located at various regulating stations of city or urban gas supply system by changing position of number of weights on balance lever and by turning valves as directed from central office. Drives truck to locations and uses hand tools, such as, pipe threaders, wrenches and electric drill to clean, service or overhaul governors, valves and odorizers. May direct other worker in monitoring pressure regulating equipment. May purge new mains and service extensions to ensure safe operation, using nitrogen and compressor.

GED: 3 SVP: 7 PA: M 2 3 4 6 7 8 EC: B 6 DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 3 4 4 3 3 3 5	9 1	0 Y

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9537-138 GAS-PUMPING-STATION OPERATOR (utilities, n.e.c.)

Operates compressors and pumps to transfer natural gas between processing stations and storage areas and to maintain specified pressures in distribution lines:

Turns handwheels to open valves in gas lines to allow gas to flow into and out of compressors. Observes pressure gauges to determine variations in consumption rate and turns knobs or manipulates switches that control valve action to increase or decrease pressure. Starts, stops, and regulates speed of exhauster (gas compressor) to force gas through purifiers or to storage tanks or mains. Reads gas meters and records amount of gas received and dispensed from pipelines. Drains condensation from drift valve on gas mains. Monitors equipment to detect malfunctions, and cleans, greases, adjusts, and makes minor repairs.

GED: 3 SVP: 6 PA: L 4 7 EC: I 5 DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 3 4 3 4 3 4 4	9 1	0 Y

9537-142 GAUGER, OIL (petrol. & coal prod.; trans., n.e.c.)

Gauges and tests oil in storage tanks, and regulates flow of oil into pipelines at wells, tank farms, refineries, and marine and rail terminals, following prescribed standard and regulations:

Gauges quantity of oil in storage tanks before and after delivery, using calibrated steel tape and conversion tables. Takes oil temperature by lowering thermometer into tank. Takes oil sample by operating bleeder valve or by lowering container into tank, and uses centrifugal tester to determine amount of bottom sediment, water and foreign matter. Records reading and tests result. Opens and closes valves on pipelines and tanks to regulate and direct flow of oil from and into tanks, according to delivery schedules. Reads installed gauges at specified time intervals and computes rates of oil flow and the amount of oil in tanks. Inspect pipelines, valves, and flanges to detect loose connections, leaks or other malfunctions. Tightens connections and greases and oils valves, using wrenches, grease gun and oil can. Reports leaks or defective items. Clamps seals around valves to secure tanks. Communicates with other refinery or pumping station staff by field telephone or mobile radio.

GED: 3 SVP: 6 PA: L 2 4 5 6 7 EC: O 6 7 DPT: 4 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 4 4 3 4 4	9 1	0 Y

9537-146 PUMPING-STATION OPERATOR (petrol. & coal prod.; trans. n.e.c.)

Controls electric, diesel, or gas-driven pumping equipment to transfer oil through pipelines at mainline or terminal station according to instructions and destination:

Turns valves, sets controls and starts pump to move oil through station. Reads flow and pressure meters, makes computations, and adjusts pump speed and pressure according to specifications. Turns, or directs other worker to turn handwheels that open or close valves and route flow of oil to storage tanks according to grade, or through pipelines according to destination. Switches routes of oil through alternative

pipelines to avoid contamination between grades. Gauges quantity of oil in storage tanks, takes oil storage temperatures and performs routine sample tests on samples; such as, sedimentation and water, or directs gauging and testing of oil samples by other workers. Communicates with other workers or line pumping stations, using radio-telephone. Inspects pumping equipment for leaks or malfunction. Lubricates, makes minor repairs, and adjusts pumps and equipment, using handtools. Records pressures, temperatures and flow rates, and compiles operational report.

GED: 3 SVP: 6 PA: L 4 5 6 7 EC: B 5 DPT: 4 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 3 4 4 4 3 5 4	9 1	0 Y

9537-150 TANK-FARM OPERATOR (any ind.)

Operates receiving, transfer, or delivery equipment at tank farms or storage sites for liquids, such as, petroleum products, chemicals or edible oils:

Observes flowmeters, thermometers and pressure gauges, turns valves and starts pump to transfer liquids into or between specified tanks and processing, delivery or receiving areas. Maintains records of materials moved or stored in tank system. Inspects tank storage and transfer system for leaks, abnormal pressures and temperatures or potential hazards, such as, defective electrical earthing. Reports defects or effects repairs. May control flow of liquids through preliminary processes or filters, or operate equipment to heat and lower viscosity of heavy oils or fats. May draw samples for laboratory testing.

GED: 3 SVP: 6 PA: M 2 3 4 EC: B 6 7 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 3 4 4 4 4 4 5	9 1	0 Y

9537-154 GAS-ODORIZATION-AND-SAFETY PERSON (utilities, n.e.c.)

Observes filling of odorizing tanks at natural gas distribution station, and conducts tests to determine strength of odorant and to detect leaks in distribution system:

Meets delivery tank truck at distribution station and oversees transfer of malodorant to tank. Observes pressure gauges and refers to chart to ensure that the stream of gas from mains through tank is of sufficient proportion to saturate gas with malodorant according to leak detection specifications. Tests air in homes, industrial establishment and along distribution mains to determine strength of malodorant in gas and to detect leaks, using odorometer and sense of smell. Reports quantity of malodorant used, customer contacts, tests performed, and leaks of faults detected. May check instrumentation at gas distribution stations and record data, such as, rates of flow, pressures and temperatures.

GED: 3 SVP: 5 PA: L 4 5 6 EC: B 7 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 4 4 4 4 4 4 5	9 1	0 Y

9537-158 GAS REGULATOR (utilities, n.e.c.)

Turns off or turns on gas supply to individual consumers upon request for discontinuance or resumption of gas service:

Turns off gas supply by closing shut-off valve with wrench and locks system by passing clamping wire and seal through openings in valve. Inspects, prior to resumption of service, gas appliances for proper installation and ensures new appliances meet appropriate safety codes. Unlocks meter by breaking wire seal and opening shut-off valve. Checks test dial on meter over a period of several minutes, or attaches manometer to test fitting near meter to detect drop in pressure which is indicative of gas leak. Inspects and checks pipes for leaks and enclosed areas for gas accumulations, using leak detector and combustable gas indicator. Corrects or reports defects. Reads, checks and records meter serial number and readings before turning on or turning off gas service.

GED: 3 SVP: 4 PA: L 4 EC: B DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 <u>3</u> 4 4 4 3 5 5	9 1	2 Y 0

9537-162 PUMP TENDER (any ind.)

Tends power-driven pumps and auxiliary equipment to transfer liquids, semi-liquids, gases, or powdered materials between storage or work areas, performing any combination of following duties:

Manipulates switches, levers and wheels to open valves, and to start turbine and motor-driven pumps. Observes and interprets flowmeters and pressure and level gauges. Adjusts controls to regulate route, speed, and flow of materials to and from storage tanks, processing tanks, trucks, railroad cars, ships and other areas according to requirements. Records operating data, such as, products and quantities pumped, stocks used, and pump operating time. Collects samples of materials for laboratory analysis. Lubricates moving parts of machines and makes repairs and adjustments.

GED: 3 SVP: 4 PA: L 2 3 4 7 EC: B 4 5 6 7 DPT: 6 6 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 3 4 4 4 3 5 5	1 9	2 Y 0

9537-166 PUMP TENDER, POWDERED MATERIALS (any ind.)

Tends pneumatic pumps and related equipment that transfer powdered or granulated materials between silos or storage tanks, or from collecting chutes, flues and hoppers to tank trucks or baghouse:

Pushes control buttons to start pneumatic pumps or screw conveyor system to transfer material. Uses air-hose or air-powered vibrators, or bar and mallet to clear blockage. Opens valves to actuate air or steam jets to move material down flues, chutes and hoppers. Opens slides to regulate flow of material from hoppers. Inspects fan bearings and records serviceability of equipment. Assists in maintenance and minor

repairs. Performs routine housekeeping duties in work area. May use shovel to clear spillage or to move materials when too moist to pump.

GED: 2 SVP: 3 PA: M 3 4 EC: I 5 6 7 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 <u>4</u> 4 <u>3</u> 4 5	1 9 3	2 3 Y

9537-170 PUMP TENDER HELPER (any ind.)

Helps pumpman in pumping liquids such as, chemicals or oils, from one vessel to another or from one process to another:

Coups and uncouples hose connections to load and unload tank cars and trucks. Moves levers and handwheels to adjust pumping pressures as directed, or to transfer liquids between storage tanks or to specified processing equipment. Observes pressure and flow meters. Removes samples of liquids in sample jars for laboratory analysis. Checks storage and pipeline area for leaks. Tightens pipe connections and performs minor repairs, using hand tools. Cleans and lubricates pumps, using solvents, rags, oil can and grease gun. See also definition for term title, **02-160 HELPER** (any ind.). May help to dismantle and repair pumps.

GED: 2 SVP: 2 PA: M 2 3 4 EC: B 5 6 DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>3</u> 4 3 5 5	3 1	2 3

9537-199 OTHER PUMPING AND PIPELINE EQUIPMENT OPERATING OCCUPATIONS

This residual group includes pumping and pipeline equipment operating occupations not presently classified in Unit Group 9537.

9539-STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING AND RELATED OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with activities related to the generation and distribution of electricity, and the operation of stationary engines, utilities, pumping and pipeline equipment.

9539-199 OTHER STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING AND RELATED OCCUPATIONS

This residual group includes operators of stationary engines, utilities or related equipment, not presently classified in Minor Group 953.

MAJOR GROUP 95

955-ELECTRONIC AND RELATED COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This minor group includes occupations, not elsewhere classified, concerned with operating electronic and related equipment, such as, radio, television, and communications receivers and transmitters; video and audio recording, and reproduction equipment, and motion-picture projection equipment. These occupations are classified in the following unit groups:

9550	Supervisors, Electronic and Related Communications Equipment Operating Occupations, n.e.c.
9551	Radio and Television Broadcasting Equipment Operators
9553	Telegraph Operators
9555	Sound and Video Recording and Reproduction Equipment Operators
9557	Motion Picture Projectionists
9559	Electronic and Related Communications Equipment Operating Occupations, n.e.c.

9550-SUPERVISORS, ELECTRONIC AND RELATED COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers, engaged in operating electronic and related communications equipment.

9550-118 SUPERVISOR, TELEGRAPH OPERATORS (telecom.)

Supervises and co-ordinates activities of workers engaged in operating telegraph, radiotelegraph or radiotelephone equipment to transmit and receive messages, (Unit Group 9553):
Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9550-199 OTHER SUPERVISORS, ELECTRONIC COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS

This group includes electronic and related communications equipment operating supervisors, not elsewhere classified, and related occupations not presently classified in Unit Group 9550.

9551-RADIO AND TELEVISION BROADCASTING EQUIPMENT OPERATORS

This unit group includes occupations concerned with monitoring, controlling and operating radio and television broadcasting equipment. Dispatching occupations, in which the use of message relaying equipment is secondary, are classified according to the more significant duties involved. Teletype operators are classified in Unit Group 4113, **TYPISTS AND CLERK-TYPISTS**; telephone operators in Unit Group 4175, **TELEPHONE OPERATORS**; telegraph operators in Unit Group 9533, **TELEGRAPH OPERATORS**; and radio and television announcers in Unit Group 3337, **RADIO AND TELEVISION ANNOUNCERS**.

9550-110 SUPERVISOR, RADIO AND TELEVISION BROADCASTING EQUIPMENT OPERATORS (broadcast., motion pic. & stage)

Supervises and co-ordinates activities of workers engaged in monitoring, controlling and operating radio and television broadcasting equipment, (Unit Group 9551):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9550-114 SUPERVISOR, SOUND RECORDING AND REPRODUCTION EQUIPMENT OPERATORS (broadcast., motion pic. & stage)

Supervises and co-ordinates activities of workers engaged in recording and reproducing voice, music and other sounds for radio and television broadcasting, stage productions and motion picture, stereo tape and phonograph record production, (Unit Group 9555):

Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9551-110 MASTER-CONTROL-EQUIPMENT OPERATOR
(broadcast., motion pic. & stage)

Operates master-control console and associated equipment to route radio or television programs via land transmission lines and towers for transmitter and network lines, according to schedule:

Studies and verifies program log to determine studio or location of program origin, and scheduled sequence of programming. Ensures that circuits have been set-up for program distribution to network(s). Actuates controls to connect console to transmission facilities, and manipulates console controls to switch to scheduled programming feeds, according to program log. Monitors broadcasts and verifies wave-form monitoring equipment, to identify transmission difficulties, and adjusts console controls to maintain clear, continuous service of a specified technical quality. Provides for local commercial insertions and program endings, and transmits test signals to local stations at beginning or end of programming-day. Switches to pre-taped segments, reroutes programming or may make emergency repairs to equipment, if transmitting conditions deteriorate. Prepares reports and maintains program logs.

GED: 4 SVP: 7 PA: S 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 3 4 3 3 3 3 3 5 4	1 9 7	9 0 Y

9551-114 BROADCAST-TRANSMITTER OPERATOR
(broadcast., motion pic. & stage)

Operates remote and on-site monitoring and control equipment to maintain and control radio or television broadcast transmitters:

Turns switches and controls and observes meters and indicators, to activate, control, and monitor radio broadcast transmitters. Verifies that equipment operating parameters such as, power output, radiated frequency and modulation percentage meet specified standards, and adjusts console controls to correct any indicated discrepancies. Operates controls to switch program origination from one studio to another, to site of remote broadcast or to network, as indicated by program schedule or on signal from station manager. Operates microwave equipment, to transmit video information to transmitters site or receive video signals from remote location. May repair radio transmitters and associated equipment, using electronic test equipment, hand tools and power tools.

GED: 4 SVP: 7 PA: L 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 3 4 3 3 4 3 3 3 5 4	1 9 7	9 0 Y

9551-118 VIDEO-CONSOLE OPERATOR (broadcast., motion pic. & stage)

Operates video console at television transmitter station or mobile site, to ensure that quality of taped or live picture being transmitted meets established standards:

Views picture on television monitor of video console or on camera control unit monitors, to observe framing and focus of picture. Observes meters and sets controls to adjust framing, contrast, brilliance, colour balance and fidelity of transmitted or recorded

picture. Operates controls to switch television feed from one camera or one studio to another, fading out or amplifying video as required.

GED: 4 SVP: 7 PA: S 4 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 3 3 5 3	1 9 7	9 0 Y

9551-122 MOBILE-BROADCAST-EQUIPMENT INSTALLER (broadcast, motion pic. & stage)

Installs portable and mobile equipment to enable radio or television broadcasts from locations distant from studio:

Positions equipment such as, amplifiers, auxiliary-power units, and microphones at specified locations. Runs cables from amplifiers to telephone-line junction box and connects cable ends to specified terminals, using hand tools. Connects leads to telecast or broadcast equipment and runs cables to transmitting equipment installed in vehicle. Connects power cables from specified outlets to vehicle and telecast or broadcast location or connects cable to outlets on auxiliary power generator. Switches on transmitters and auxiliary equipment, and conducts tests with studio personnel, to ensure specified equipment performance. Makes test transmissions with hand-held transceivers or cameras to check their operation and range. Prepares tape recorders for use and checks their performance. Makes adjustments to equipment to achieve optimum performance.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: B DPT: 3 6 0

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 3 3 4 5	1 9 7	9 0 Y

9551-126 SWITCHER (broadcast., motion pic. & stage)

Operates video-switcher console at studio or remote location and switches video feed from one source to another for on-the-air transmission and during taping sessions, according to instructions:

Prepares switcher console by connecting incoming and outgoing video and audio feeds to console. Actuates controls, observes video monitors and listens to sound, to ensure correct image and sound are transmitted. Observes oscilloscope to determine acceptability of video feed, actuates controls to provide specified video signal and advises technical staff of any discrepancies. Actuates and adjusts console controls, as directed during telecast, to select feed from specified camera, videotape or televue equipment for on-the-air transmission and during taping. Makes minor adjustments to equipment to correct contrast, brightness and colour. Verifies scheduled broadcast, taping and rehearsal times.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 3 3 3 5 4	1 9 7	9 0 Y

9551-199 OTHER RADIO AND TELEVISION BROADCASTING EQUIPMENT OPERATORS

This residual group includes radio and television broadcasting equipment operators not presently classified in Unit Group 9551.

MAJOR GROUP 95

9553-TELEGRAPH OPERATORS

This unit group includes occupations concerned with operating telegraph, high frequency directional-finding equipment, radiotelegraph or radiotelephone equipment to transmit and receive signals or messages, and keeping related records. Teletypists are classified in Unit Group 4113, TYPISTS AND CLERK-TYPISTS. Operators who are crew members of aircraft or ships are classified in Major Group 91, TRANSPORT, EQUIPMENT OPERATING OCCUPATIONS.

9553-110 RADIOTELEGRAPH OPERATOR (telecom.)

Operates radiotelegraph equipment to transmit and receive messages: Reads instructions to obtain details concerning message traffic on hand and any emergency or priority messages. Calls station(s) to which message is to be passed in radio-telegraphy code and following specified operating procedures. Transmits messages, using hand or semi-automatic key, and receives acknowledgment for each from receiving operator. Acknowledges calls and receives traffic for own station, using headphones or loud speaker, and writes or types messages on prescribed form(s). Adjusts receiver controls as required to increase selectivity and sensitivity, and to reduce interference. Records details concerning traffic in log book. Reports equipment unserviceability, failure to communicate for other reasons, or details concerning urgent traffic, to supervisor. May use radiotelephone equipment to transmit and receive messages.

GED: 4 SVP: 6 PA: S 4 6 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 <u>3</u> 4 4 4 <u>3</u> <u>3</u> 3 4 5 5	1 9	3 Y

9553-111 COMMUNICATOR, RESEARCH (military)

Operates communications research and high frequency direction-finding equipment in support of research programs of classified nature concerning Arctic communications techniques and equipment, and in support of search and rescue efforts:

Performs duties as described under master title, 01-300 SERVICE-MAN/WOMAN (military). Operates supplementary radio transmitters, receivers and auxiliary equipment. Receives Morse Code, and transcribes and records data by hand or types data. Records, evaluates and interprets information, using aids such as perforated and magnetic transcribing tapes. Maintains logs peculiar to supplementary radio system. Operates radio direction-finding equipment. Operates teletype equipment such as teleprinters, tape perforators and reperforators. Sets up and operates on-line and off-line cryptographic equipment. Performs operator maintenance on recording equipment, teleprinters and cryptographic, direction-finding, and supplementary radio equipment.

GED: 4 SVP: 6 PA: S 4 5 6 EC: I DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C	"	
3 <u>3</u> 4 4 4 <u>3</u> <u>3</u> 3 4 4 5	9 1	3 Y

9553-112 RADIO OPERATOR (military)

Operates fixed, air transportable and mobile communications equipment in the Canadian Forces:

Performs duties as described under master title, 01-300 SERVICE-MAN/WOMAN (military). Prepares and transmits messages vocally and using telegraphs and teletypes in both field and static environments such as, air bases and radio stations. Maintains communication logs and network diagrams. Operates radio equipment including transmitters, receivers, transceivers, remote-control equipment, frequency shift tone-keyer converters and equipment used for transmitting and receiving Morse Code. Operates teletype equipment including teleprinters, reperforators, perforators and transmitter-distributors. Reads teleprinter tape codes. Sets up and operates on-line and off-line cryptographic equipment. Restores telegraph circuits, and tests equipment. Drives military vehicles.

GED: 4 SVP: 6 PA: S 4 5 6 8 EC: I DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 <u>3</u> 4 4 3 <u>3</u> <u>3</u> 4 4 5	9 1	3 Y

9553-113 RADIO OPERATOR, SEA (military)

Operates and assists in maintenance of radio equipment onboard Canadian Forces ships and submarines:

Performs duties as described under master title, 01-300 SERVICE-MAN/WOMAN (military). Sets up and operates fixed, mobile and portable communication systems, and selects appropriate frequencies. Receives, transmits and records message, using Morse Code, radio telephone, radio teletype and tape relay. Processes, routes, distributes and files messages. Assists in inspecting, testing and maintaining receivers, transmitters, cryptographic equipment and teletype printers.

GED: 4 SVP: 6 PA: S 4 5 6 EC: I DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 <u>3</u> 4 4 4 <u>3</u> <u>3</u> 4 4 5	9 1	3 Y

9553-114 RADIOTELEPHONE OPERATOR (telecom.)

Operates radiotelephone equipment to transmit and receive messages: Calls station(s) to whom message traffic is to be passed, by voice, using radiotelephone equipment, and following specified operating procedures. Actuates microphone switch or sets transmitter function switch for voice operated control, and speaks into microphone. Uses phonetic alphabet when requested by receiving operator or when receiving conditions warrant. Requests acknowledgment of messages from receiving operator. Receives incoming traffic for own station and writes or types messages on prescribed form(s). Adjusts receiver controls as required to increase selectivity and sensitivity and reduce interference. Records calls made and received and other relevant data in log book. Reports equipment unserviceability, failure to communicate for other reasons, or details concerning urgent traffic, to

supervisor. Does not use radiotelegraph equipment to transmit or receive messages.

GED: 3 SVP: 5 PA: S 4 5 6 EC: I DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 3 3 4 5 5	1 9	3 Y

9553-115 SIGNALLER, SEA (military)

Operates and maintains visual, sound and teletype signalling equipment onboard Canadian Forces ships:

Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Sends and receives message, using signal flags, infra-red equipment, Morse code signalling lights, pyrotechnics, radio telephone and teletype equipment. Operates search navigation, identification and warning lights. Encodes and decodes messages, using manual and automatic cipher equipment. Tests, and maintains signalling equipment. Originates, reviews and submits forms including failure reports, time-study cards and maintenance control cards.

GED: 3 SVP: 6 PA: S 4 5 6 7 EC: B 4 DPT: 3 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 3 3 4 4 4	9 1	3 Y

9553-118 TELEGRAPHER (telecom.)

Transmits and receives messages, rail traffic information, train orders, and telegrams in telegraphic code:

Writes or types outgoing messages and actuates controls to select appropriate land-line circuits to contact receiving station(s). Transmits messages in telegraphic code, using manual or semi-automatic telegraph key. Sends repeats or clarifications required by receiving operator. Receives incoming messages, using telegraph receiving apparatus and types or writes message on specified form. Marks messages for local distribution, telephones message to addresses or relays message via other land-line circuits. May perform other duties applicable to a small railway station, such as selling tickets and forwarding and receiving baggage.

GED: 3 SVP: 5 PA: S 4 5 6 EC: I DPT: 5 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 4 3 3 3 4 5 5	1 9	3 Y

9553-199 OTHER TELEGRAPH OPERATORS

This residual group includes telegraph operators not presently classified in Unit Group 9553.

9555-SOUND AND VIDEO RECORDING AND REPRODUCTION EQUIPMENT OPERATORS

This unit group includes occupations concerned with recording and reproducing video images, and audio, by use of

electronic equipment, for radio and television broadcasting and motion picture, tape and phonograph record production. Radio and television broadcasting equipment operators are classified in Unit Group 9551, **RADIO AND TELEVISION BROADCASTING EQUIPMENT OPERATORS**.

9555-110 SOUND MIXER (broadcast., motion pic., & stage)

Operates audio console to regulate volume and quality of sound from various audio feeds such as, voice, music and taped sound effects during stage productions, filming of motion pictures, commercials or documentaries, phonograph and video taping sessions and radio and television broadcasts:

Determines audio production requirements by attending production meetings, reading scripts and by assessing acoustics of premises, to maintain sound quality under a variety of conditions. Supervises selection, transportation and unloading of sound equipment and directs set up and placement of mixing console, recorders, microphones, cables and associated equipment to attain optimum sound pickup. Actuates and adjusts audio console-controls according to production plan requirements, to regulate output of microphones and tape feeds and achieve sound equalization, balance and quality. Monitors audio signals using headset or loudspeaker, and observes console meters to test sound signals. Signals assistants to move floor equipment according to sound signals received. Instructs performers to project voices or move closer to microphones, sets sound levels and combines all tracks. Obtains tapes, records and themes from library and combines them to produce audio for specific program requirements. Recommends modification of equipment or purchase of new equipment to improve audio facilities.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: I DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 3 3 3 3 4 3 3 3 5 5	9 1 7	9 Y 0

9555-114 STEREO-TAPE EDITOR (misc. prod. fab., n.e.c.)

Listens to master stereo tape or record containing several selections, to determine selections to be used for producing stereo-tape cassettes and cartridges:

Places master tape on tape-recorder-reproducer, or master record on phonograph turntable. Starts equipment and notes playing time of each selection. Determines selections to be used for tape cassettes or cartridges, considering playing time requirement of cassette or cartridge and of each selection. Places reel of blank tape in second tape-recorder-reproducer, sets recording amplifier controls to specified settings and switches on equipment, to produce dub tape (working copy) of chosen selections from master tape or record. Edits dub tape by rearranging order of selections or cutting out portions and splicing tape. Reproduces production-master from edited dub for use in stereo cassette and cartridge production, using tape-recorder-reproducer.

GED: 4 SVP: 7 PA: L 4 6 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 3 3 3 3 4 3 3 3 5 5	7 9 1	9 Y 0

MAJOR GROUP 95

9555-118 RE-RECORDING MIXER (broadcast., motion pic. & stage)

Operates console to balance music, sound and dialogue pre-recorded on individual sound tracks with action of picture, and controls sound levels and quality to produce desired, combined effect:

Attends pre-production meeting to determine final product specifications. Prepares audio control room equipment, such as, vtr, synchronizing machine, audio mixing board and sound transfer equipment by loading cassettes or threading tape and film through machine mechanisms. Sits at keyboard of synchronizer and assembles cue sheets (records to provide film or program highlights on footage basis) to identify integration specifications to be combined. Operates console keyboard to activate equipment and enters time codes provided by cue sheets. Observes video monitor and listens to sound on monitor speakers. Selects sound required for mixing and depresses console control key to automatically link sound tracks in synchronization with picture. Adjusts controls to regulate sound levels and tones from individual sound tracks. Mixes and combines all tracks on single track master tape by manipulating console controls. Records identifying information on master tape label for cataloging or delivery to customer.

GED: 4 SVP: 7 PA: S 4 5 6 7 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 <u>3</u> 3 3 5 5	7 9 1	9 Y 0

9555-122 VIDEO-AND-SOUND RECORDER (broadcast., motion pic. & stage)

Operates electronic tape recording equipment that records live television broadcasts, duplicates tapes, executes slow motion replays and computerized editing, to prepare sound and film for rebroadcast: Prepares for session by assembling production cue sheets and reviewing predetermined time schedule and program content material. Observes video monitors and receives production instructions on headset. Actuates video keyboard controls on cue, to record program. Observes video monitors and reads meters and scopes to maintain quality of incoming and outgoing picture and sound feeds. Adjusts controls to correct irregularities on outgoing feeds. Rewinds, plays back and reviews master tape, to evaluate technical quality of sound and picture. Adapts slow motion replays to program as required and edits master video tape according to instructions of director, using computerized editing equipment, to perfect video for subsequent broadcast. Makes duplicate tapes, utilizing electronic recording and duplicating equipment.

GED: 4 SVP: 7 PA: S 4 6 7 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 <u>3</u> 3 3 5 4	7 9 1	9 Y 0

9555-126 VIDEO-RECORDING-EQUIPMENT OPERATOR (broadcast., motion pic. & stage)

Operates videotape recording, playback and electronic tape-editing equipment, to record live television programs, and edit videotape prior to broadcast:

Obtains and loads specified tape reel or cassette into recording equipment and checks operation of recorder, prior to taping. Sets

recording equipment controls according to program and technical requirements, as specified by producer. Observes video equipment monitor and listens to sound on speakers or headphones to ensure correct signals will be received during taping. Switches on equipment on cue, to tape program. Checks quality and level of incoming and outgoing picture and sound feeds, and reports irregularities to control room. Rewinds and removes videotape from recorder, and identifies tape at end of session. Plays back tape and monitors video and audio quality, to ensure recording meets predetermined standards. Operates electronic editing equipment to erase unacceptable portions of tape and to add video, audio or a combination of both, as directed. Cuts and splices videotape to meet program requirements. Cleans and maintains equipment.

GED: 4 SVP: 7 PA: L 4 5 6 7 EC: I DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 <u>3</u> 3 3 5 4	7 9 1	9 Y 0

9555-130 SOUND-EFFECTS TECHNICIAN (broadcast., motion pic. & stage)

Operates sound recording and playback equipment and employs special props to produce and record sound effects, used to add realism to radio and television broadcasts or other productions:

Produces and records artificially created sounds, using Foley room props and tape recording equipment. Travels to various sites to locate and record natural sounds on tape. Catalogues recordings according to sound content and files recordings in library. Determines sound-effects required for program by attending pre-production meeting, reading script and by studying programming requirements. Selects pertinent recording(s) from library. Plays back and edits recording to ensure correct usage and timing of sound effects with program material. Operates console controls to monitor broadcast and actuates console controls to adjust sound levels and electronically feed effects to broadcast. May extract and record on another tape those portions required for broadcast.

GED: 4 SVP: 6 PA: L 4 6 EC: I DPT: 2 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 3 3 4 <u>3</u> 3 3 5 5	7 9 1	0 9 Y

9555-134 MASTER-RECORD CUTTER (misc. prod. fab., n.e.c.)

Operates tape playback equipment and record cutting lathe to cut master records used in production of phonograph records:

Positions master tape on playback machine spindle and threads tape over tension rollers and onto take-up reel. Sets playback controls at specified volume and frequency levels, by matching test tones provided by recording engineer, to those on system. Starts playback system to listen to selection, and adjusts recording level volume, to ensure whole tape can be accommodated on one disk. Places blank lacquer disk on turntable of record cutting lathe. Sets cutter-head controls according to desired number of grooves per centimeter and depth of cut and pitch required. Interconnects playback equipment and cutting lathe using interconnecting cable. Restarts playback equipment to feed audio signals to cutting stylus to form patterned grooves on master disk. Observes disk using microscope attached to cutter, during and after cutting, to ensure grooves are level and even. Monitors sound during

cutting and makes final adjustments to amplification levels. May cut master record from phonograph record.

GED: 4 SVP: 5 PA: L 4 6 7 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 5	7 9 1	0 Y 9

9555-138 SOUND-RECORDING-EQUIPMENT OPERATOR (broadcast., motion pic. & stage)

Operates studio console or portable recording equipment to record music or dialogue for radio and television programs or motion picture productions:

Places reels of magnetic tape on recording machine spindle and threads it through rollers and tensioners and over recording head, or inserts cassette tape into recorder. Starts recording machine and actuates console switches to connect microphones to recording equipment. Monitors recorded sound, using headphones or loudspeakers, to detect deviation from quality standards. Adjusts controls to increase or decrease audio level and to eliminate or reduce extraneous sounds. Rewinds and identifies tapes produced. Maintains equipment used, using hand tools and test equipment.

GED: 4 SVP: 5 PA: S 4 6 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 5	7 9 1	9 0 Y

9555-142 TELECINE OPERATOR (broadcast., motion pic. & stage)

Controls telecine equipment in television broadcasting studio: Operates and controls equipment, such as moving-picture projectors, slide projectors and video recording and playback equipment, to produce videotape for future use by television station or network. Obtains moving-picture film or photographic slides from studio library or other source. Inserts moving-picture film or slides and audio-tape, into video recording equipment to produce videotape, containing sound and video information. Feeds videotape into video playback equipment. Observes picture and listens to sound to assess content and quality. Labels tape to identify contents to enable its inclusion in television program material. Monitors television program and on signal or cue from producer or network, actuates controls to feed videotape into input of console, for instantaneous transmission. Installs, adjusts and repairs equipment, using electronic-test equipment and hand tools. May operate moving picture projector or slide projector, on cue or signal, to produce video information for instantaneous transmission.

GED: 4 SVP: 5 PA: S 4 6 7 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 4	7 9 1	9 0 Y

9555-146 DUBBING-MACHINE OPERATOR (broadcast., motion pic. & stage)

Operates magnetic-tape-dubbing machines that simultaneously play back edited dialogue, music and sound effect tracks from separate

sources, in synchronism with motion picture film action:

Loads specified tape and motion-picture reels on spindles of dubbing-machine and threads tape and film through machines to interlock and synchronize tape and film. Attaches electrical connecting cables between dubbing and re-recording equipment and plugs in microphone-earphone headset, to communicate with re-recording mixer. Actuates switches to start, stop, reverse or replay tapes on instruction from re-recording mixer. Observes meter to ensure correct audio levels are maintained. Monitors play back of combined audio track, to detect substandard sound and quality, as well as defects, such as, hum, clicks and drop out.

GED: 3 SVP: 4 PA: S 4 5 6 7 EC: I DPT: 6 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 5	7 1 9	9 Y 0

9555-148 VIDEOTAPE EDITOR (broadcast., motion pic. & stage)

Operates electronic videotape console and associated equipment to combine segments of tape into composite tape: Sets up equipment, feeds and switches and loads videotapes into recording, playback and editing machines. Monitors wave form meters to determine acceptability of video feeds. Adjusts controls to maintain contrast, brightness and colour of production tape. Observes playback monitors at editing console to review video segments and manipulates video input and sound controls manually or by entering codes on computer keyboard, to create the desired effect. Actuates controls on computerized editing console to automatically combine scenes on cue from director. Produces special effects, such as, fading, dissolves and patterns by manipulating console controls as directed. Increases or decreases length of production according to instructions received.

GED: 3 SVP: 4 PA: S 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 4	7 9 1	0 Y 9

9555-150 SOUND EDITOR (broadcast., motion pic. & stage)

Synchronizes audio with visual portions of motion picture film, using synchronizing equipment, film-making machine and film-splicing machine:

Loads synchronizer with reels of picture and sound-track film. Threads film over light aperture, sound take-off device and onto take-up reels. Consults production orders and starts synchronizer. Observes picture to view action, watches for symbol and listens to beeping sounds, used to assist in synchronizing. Starts, stops and reverses either visual or sound reels to achieve synchronizing, and marks film with appropriate symbol, using marker. Identifies short lengths of film such as, sound effects or missing sequences, using movieola (small projector) and splices in film at specified spots as indicated by production orders, using film splicing equipment.

GED: 3 SVP: 4 PA: S 4 6 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 3 3 4 <u>3</u> 3 3 5 5	1 9 7	0 Y 9

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9555-154 TAPE DUPLICATOR (misc. prod. fab., n.e.c.)

Tends one or more tape-duplicating machines to reproduce copies from master tape, for use in tape cassettes or cartridges:

Reads work order instructions to determine name of production, number of copies and tape size required, and recording amplifier settings. Sets amplifier controls on master-reproducing machine. Obtains specified size and quantities of tape. Positions master tape in reproducing machine and loads and threads blank tape through recording machines or inserts blank cassettes into slots. Interconnects machines and starts machines to record production on blank tape. Removes tapes from recording machines and attaches identifying data to each reel or cassette. Cleans tape heads and guides of machines, using alcohol and cloth.

GED: 2 SVP: 3 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 4 <u>4</u> 4 4 3 5 5	1 9 3	2 Y 3

9555-199 OTHER SOUND AND VIDEO RECORDING AND REPRODUCTION EQUIPMENT OPERATORS

This residual group includes sound and video recording and reproduction equipment operators not presently classified in Unit Group 9555.

9557-MOTION PICTURE PROJECTIONISTS

This unit group includes occupations concerned with operating motion-picture projectors and related equipment to produce co-ordinated motion-picture entertainment.

9557-110 MOTION PICTURE PROJECTIONIST (amuse. & rec.; broadcast., motion pic. & stage)

Operates motion-picture projection and sound-reproducing equipment in theatre or similar establishment:

Prepares film for showing by examining film quality, rewinding film onto reels, and marking film reels according to sequence. Loads reels of film into magazines of motion picture projectors. Threads film across picture aperture of projector, around pressure rollers, sprocket wheels and sound pick-ups, and onto take-up reel, ensuring proper film tension. Dims house lights and opens stage curtains according to schedule. Switches on projector and audio amplifier. Adjusts projection light and focus controls to obtain clear image on screen. Regulates audio controls to produce desired audio mix and sound levels. Observes film in progress and switches on alternate projector when special symbols appear on screen to guard continuity of storyline. Removes reel shown and inserts new reel into projector not in use. Repairs film in case of breakage, by rewinding film onto reel by hand and by using film splicer. Cleans lenses, changes projection bulbs, maintains projectors and makes minor repairs and adjustments to equipment, if required. May operate stage spotlight.

GED: 4 SVP: 6 PA: L 4 6 7 EC: I 7 DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 3 4 3 3 5 4	7 9 1	0 Y

9559-ELECTRONIC AND RELATED COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This unit group includes electronic and related communications equipment operating occupations, not elsewhere classified, concerned with activities such as, investigating sources of interference to radio and television reception and commercial communications equipment; operating equipment to transmit and receive weather maps, photographs, and printed material; and moving microphones or adjustable booms during live productions.

9559-110 RADIO-INTERFERENCE INVESTIGATOR (gov. serv.)

Investigates sources of interference to radio and television reception and to commercial communications equipment, using vehicle equipped with multi-band receivers, direction finding equipment and special test equipment:

Receives report of interference and address or location of complainant(s). Switches on radio equipment, observes meter that indicates noise level and listens on several frequency bands to determine what bands are affected. Tunes across several bands to locate interference caused by diathermy equipment or radio transmitters. Adjusts direction finding equipment to obtain bearing, to assist in locating interference. Confers with personnel at location of interference to gain access to industrial, commercial or other establishments, to allow further investigation, to pinpoint interference source. Conducts further tests, using portable receiving equipment and electronic test equipment. Turns off equipment suspected of causing interference to confirm testing and investigation. Makes measurements of radio transmission to detect spurious radiation or harmonics. Taps hydro poles with mallet, to detect interference caused by cracked insulators or poor connections. Prepares report outlining level and cause of interference and other pertinent details. Discusses findings with establishment personnel.

GED: 4 SVP: 7 PA: L 4 5 6 EC: B DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> 3 4 <u>3</u> 4 4 4 3 4 3 5	9 1 7	0 Y 9 5

9559-111 AIR-DEFENCE TECHNICIAN (military)

Monitors electronic equipment to provide classified information used in timely detection, tracking and identification of airborne objects into Canadian and American airspace:

Performs duties as described under master title, 01-300 SERVICE-MAN/WOMAN (military). Operates radar and electronic-display consoles, communications equipment and military command and control computers. Operates detection equipment such as search and height finder radars. Interprets radar weather displays and provides information to local and regional atmospheric environment services. Operates consoles to provide information and to relay control guidance instructions to fighter aircraft. Receives, authenticates and distributes voice alert messages, and provides two-person control of cryptoauthenticator codes. Performs operator maintenance on equipment, and checks calibration of long-range radius. Diagnoses malfunctions of communications equipment, and ensures repairs are performed. Maintains operational logs of all air defence activities, and amends

classified and unclassified publications. Operates private branch exchange (PBX) switchboard.

GED: 4 SVP: 6 PA: S 4 5 6 7 EC: I 5 6 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>3</u> 4 <u>3</u> 4 4 5 4	9 1	0 Y

9559-112 RADAR PLOTTER, SEA (military)

Operates radar and communications systems and other position-finding equipment onboard ship to detect ships and aircraft. Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Operates surface, air and navigational radars, radar-display systems, internal and external communication systems and position-finding equipment. Determines position and speed of travel of ships and aircraft or position of obstacles such as, icebergs, and informs operational personnel of situation. Plots surface, sub-surface and air contacts on charts, plotting tables, overlays and vertical-plotting boards. Compiles reports and maintains records of action information. Performs preventive maintenance, minor corrective maintenance, alignments and calibrations on equipment. Orders supplies and spare parts required for radar and related equipment and controls their distribution. Maintains classified and unclassified publications and equipment.

GED: 4 SVP: 6 PA: S 4 5 6 7 EC: I 5 6 DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 <u>3</u> 4 <u>3</u> 4 4 4 4	9 1	0 Y

9559-113 ELECTRONIC-WARFARE OPERATOR (military)

Operates and assists in maintenance of electronic surveillance equipment onboard Canadian Forces ships. Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Operates all types of electronic warfare intercept receivers and radar signal jamming transmitters. Compares signal characteristics with pictorial reference displays, and operates and adjusts display scopes and scanners to enable target identification. Assists in testing, tuning, repairing, maintaining and aligning electronic-warfare equipment.

GED: 4 SVP: 6 PA: L 4 5 6 7 EC: I 5 6 DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 <u>3</u> <u>3</u> 4 <u>3</u> 4 4 4 4	9 1	0 Y

9559-114 AUTOMATIC-DATA-TRANSCIEVER OPERATOR (telecom.)

Operates automatic equipment used to transmit and receive data; such as, weather maps, printed material, photographs and drawings. Secures printed material, map or photograph to machine cylinder. Actuates switches or controls to connect equipment to designated radio or landline circuit. Starts equipment that scans data on drum and converts light variations to equivalent electrical impulses. Actuates controls to adjust contrast, to ensure acceptable copy at remote locations. Positions negative on cylinder to receive incoming data.

Sorts outgoing data for transmittal. Removes incoming data and routes it to specified recipients. Makes minor adjustments to equipment and reports malfunctions to superior. Maintains log of traffic handled.

GED: 4 SVP: 5 PA: L 4 7 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>3</u> 4 <u>4</u> 4 4 5 5	9 1	0 Y

9559-115 SONAR OPERATOR (military)

Operates underwater acoustic detection systems onboard Canadian Forces ships. Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Operates sonar equipment such as, range and bearing recorders to detect, track, classify and report contact with underwater objects such as, submarines. Operates secondary sonar equipment, including underwater telephone and water-temperature recorders. Assists in testing, maintaining, modifying, installing, and repairing sonar equipment.

GED: 4 SVP: 6 PA: L 4 5 6 7 EC: I 5 6 DPT: 3 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 4 4 <u>3</u> 4 <u>3</u> 4 4 4 4	9 1	0 Y

9559-116 OCEANOGRAPHIC OPERATOR (military)

Operates electronic oceanographic equipment to provide classified information and converts analyzed data into comprehensive reports for submission to Canadian Forces Maritime Bases and ships. Performs duties as described under master title, **01-300 SERVICE-MAN/WOMAN (military)**. Operates oceanographic equipment to record sound patterns produced by ocean-going craft and adjusts equipment to obtain optimum data display. Operates peripheral tape recording equipment and other equipment to preserve data. Operates data transmission system. Identifies important features of displayed data and marks records for future analysis. Prepares and maintains charts, graphs and printouts of analyzed data. Converts analyzed data into detailed reports used in conducting statistical studies. Performs routine maintenance and minor repairs on oceanographic equipment, using hand tools, electrical-measuring instruments and electronic-testing equipment. Maintains records, compiles reports and returns, amends classified publications and performs other clerical duties.

GED: 4 SVP: 6 PA: S 4 7 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 <u>3</u> 4 <u>3</u> <u>3</u> 4 4 5 4	9 1	0 Y

9559-118 BOOM-MICROPHONE POSITIONER (broadcast., motion pic. & stage)

Moves microphones manually or on adjustable boom to position them in proximity of performers during filming of motion pictures or television broadcasts.

Attaches microphone to rubber or plastic supports at end of boom, to dampen vibrations and improve audio quality. Positions preamplifier

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on boom and attaches interconnecting cable assembly between microphone and preamplifier. Reads script, to become familiar with actions of performers. Plugs in and wears microphone-headset to enable communication with recording staff. Positions microphone so it does not cast a shadow or come in view of camera. Positions stand microphones on stage or set when required. Moves boom according to script and position of performers or as directed by sound recorder. Examines, cleans and services equipment after performance.

GED: 3 SVP: 5 PA: M 2 4 EC: 1 DPT: 6 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 3 4 <u>3</u> 4 4 4 4 <u>4</u> 4 5	9 1	9 Y

959-OTHER CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This minor group includes occupations, not elsewhere classified, concerned with processing and examining photographic films and prints, and performing other craft and equipment operating activities requiring the use of specialized tools, machines or techniques. These occupations are classified in the following unit groups:

9590	Foremen/women, Other Crafts and Equipment Operating Occupations, n.e.c.
9591	Photographic Processing and Finishing Occupations
9599	Miscellaneous Crafts and Equipment Operating Occupations, n.e.c.

9590-FOREMEN/WOMEN, OTHER CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, as described under the master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating activities of workers, not elsewhere classified, engaged in photographic processing and finishing and other crafts and equipment operating and tending occupations.

9590-110 FOREMAN/WOMAN, PHOTOGRAPHIC PROCESSING & FINISHING OCCUPATIONS (broadcast., motion pic. & stage; misc. serv.)

Supervises and co-ordinates activities of workers concerned with processing and finishing exposed photographic colour or black and white still and motion picture film, (Unit Group 9591):
Performs duties as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.).

DPT: 1 3 8

9590-199 FOREMEN/WOMEN, MISCELLANEOUS CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This residual group includes occupations, not elsewhere classified, as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-

9559-199 OTHER ELECTRONIC AND RELATED COMMUNICATIONS EQUIPMENT OPERATING OCCUPATIONS

This residual group includes electronic and related communications equipment operating occupations that are not presently classified in Minor Group 955.

ordinating the activities of craftspersons and equipment operators, and related occupations not presently classified in Unit Group 9590.

9591-PHOTOGRAPHIC PROCESSING AND FINISHING OCCUPATIONS

This unit group includes occupations concerned with processing and finishing exposed photographic still-and motion-picture film. Activities include: operating and tending automatic and semi-automatic photo lab equipment, or performing manual operations to process colour or black and white film to obtain negatives or transparent positives, to print and develop colour or black and white photographs, and to enlarge or reduce photographs.

9591-110 PHOTOGRAPH ENLARGER (misc. serv.)

Makes enlarged or reduced photographic prints from negatives, using photograph enlarging and automatic developing equipment: Examines negatives for contrast and reads customer instructions to determine grade of paper to be used and enlarger machine settings required, to produce prints of a given colour and quality. Checks negative and glass table plate of enlarger and removes smudge marks and dust particles. Aligns negative on glass plate by hand and adjusts and positions enlarger cover over surface, to obtain the required focus setting and print size. Sets colour filter controls on enlarger to ensure exposures will meet specifications. Activates and operates enlarger by manipulating controls to produce the required number of exposures on photographic paper. Removes exposures to darkroom and inserts

exposures into automatic developer. Removes developed strip of prints from developer and inspects prints for size, clarity, colour hue and density. Cuts out individual prints by hand and places prints in envelope. Records customer information on envelope.

GED: 3 SVP: 7 PA: L 4 7 EC: I DPT: 3 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 <u>3</u> 4 <u>3</u> 3 3 5 3	9 0 1	9 0 Y

9591-112 NEGATIVE-CONTACT-FRAME OPERATOR (bus. serv.; print. & pub.)

Operates photographic contact-frame equipment to reproduce printed material such as, negatives, tracings and documents on photographic paper or film:

Inspects original and glass bottom of contact-frame and removes smudge marks and dust particles. Positions original on glass bottom of contact-frame and covers original with photographic paper by hand. Aligns and secures cover over frame and moves frame under light source to prepare for exposure. Sets controls to regulate exposure according to exposure duration and particular intensity level required. Activates light source and exposes paper to light, to sensitize paper and imprint images from originals onto paper. Removes photographic paper from frame and inserts paper into automatic developing machine, for developing. Removes developed contact proof from developer and places it in envelope with original. May touch up print by retracing broken lines and removing spots and blurs using chemicals, ink, brushes, and pen. May reprint original in sections and piece sections together.

GED: 4 SVP: 6 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 <u>3</u> 4 <u>3</u> 3 3 5 4	9 0 1	9 0 Y

9591-114 FILM DEVELOPER (misc. serv.)

Prepares exposed films for developing in automated processor, or performs developing process manually, to produce negative or positive prints:

Receives film hangers containing rolls of exposed films and determines the type of film developing machine to be used, by identifying the types of film on hangers. Carries hangers of film into darkroom and places hangers on rack at eye level. Takes roll of film and opens and removes metal film container lid using small hand tool, and carefully pulls out film by hand. Secures film strip to film carrier, emulsion side out, using metal clips, to prepare strip for processing in automatic developing machine. Identifies film by sticking identification number to bottom of hanging strip for customer matching purposes. Completes subsequent rolls, fills film carriers and carries loaded carriers to appropriate developing machines. Positions film carriers on machines' conveyor chain by inserting ends of carriers into moving conveyor system, to allow films to be deposited and bathed in chemical solutions automatically. May develop film or sensitized paper manually, by

mixing chemical solutions and maintaining their temperatures, and by hand immersing film or paper into baths for specified periods of time.

GED: 3 SVP: 6 PA: L 4 7 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 <u>3</u> 4 <u>3</u> 3 3 5 3	9 1	0 Y

9591-118 NEGATIVE RETOUCHER (misc. serv.)

Retouches photographic negatives or original prints, to correct defects, according to customer specifications:

Checks negatives or originals and reads customer's instructions to determine nature of retouching job. Mounts, aligns and secures negative or original on glass-topped table of retouching apparatus. Examines job using magnifying glass attached to apparatus at eye level, to isolate problem areas. Activates apparatus and regulates light intensity and speed of vibrating table, by manipulating controls, to create optimum working conditions. Brushes opaque solution over negative or original, or controls vibrating table, to brush solution over surface and shadow bare spots and scratches. Selects and applies coloured dyes to areas requiring retouching, using fine hand brushes or air brush to correct flaws. Retouches and removes unwanted lines, using needle-sharp draughting pencils, to apply lead shading, if required. Places completed order into envelope for customer pick-up delivery.

GED: 3 SVP: 6 PA: S 4 7 EC: I DPT: 6 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 <u>3</u> 4 <u>3</u> 3 3 5 3	9 1	9 Y

9591-122 COPY CAMERA OPERATOR (misc. serv.)

Duplicates printed material on sensitized paper or film according to customer specifications, using photographic equipment:

Reads work order or confers with supervisor to determine processes and techniques to be adopted, and equipment and materials required. Mounts camera on tripod or stand and inserts film sheets of the prescribed type and size into film holder of camera, by hand, to prepare for shooting. Places and aligns original on sensitized material in vacuum frame, or secures original on prescribed background or on a light box, depending on the nature of the original to be photographed. Loads film holder into camera and sets camera controls by hand, to regulate focussing, sizing and exposure factors. Views and studies original through viewfinder of camera to gauge distances and angles, calculate light requirements and determine aesthetic values, adjusting camera controls to meet customer specifications. Activates camera and exposes film, imprinting original on film, using shutter button and timing device, to take the required number of photographs. Removes film holder from camera and carries holder into darkroom. Unloads exposed film sheets from holder and instructs darkroom staff on developing specifications. Examines and inspects developed photographs to determine if they meet customer specifications and places

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acceptable selections in envelope for customer pickup or delivery. May develop exposed film in darkroom and retouch prints as required.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 2 6 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 3 4 3 3 3 5 3	9 1	9 0 Y

9591-124 PHOTO-DEVELOPER-PRINTER (misc. serv.)

Tends automatic equipment in retail establishment, that develops colour negatives from exposed film, and prints colour photographs from developed negatives:

Takes customer order and records pertinent information on claim check. Carries film cartridge or roll to work area and affixes end of protruding film to feed sheet or leader, and inserts sheet into developer in preparation for developing. Adjusts machine settings, to control feeder speed and power supply according to pre-determined specifications, and activates feeding device to immerse and pull film through chemical baths, automatically. Removes developed negative strip from drying bin by hand, and inspects strip, removing static and dust using antistatic device, to obtain clear prints. Aligns developed strip on carrier of printer and selects appropriate lens to project image from negative onto photographic paper. Adjusts colour density controls according to conditions of negatives, and activates printer. Monitors printing process, removes negative strip and cuts strip into envelope sized lengths. Retrieves prints from print bin and inspects individual prints for quality. Inserts negatives and prints into envelope for return to customer. Maintains equipment and replenishes machine supplies according to manufacturer specifications. May mix batches of chemical solutions, according to instructions.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 7 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 3 4 3 3 3 5 3	9 1	9 0 Y

9591-126 MOTION-PICTURE-FILM PRINTER (broadcast., motion pic. & stage)

Operates automatic printing machine that transfers colour or black-and-white images from original source material onto photographic film:

Reads job sheet to determine customer specifications, film types and numbers of copies required. Mounts reels of positive and reversal film on machine spindles, by hand. Places leaders from each film together to ensure contact. Threads film through machine mechanism and attaches end to take-up reels. Sets-up printing machine to operate according to specifications by inserting computer-numerical-control tape into CNC device, to automatically regulate light intensity, exposure time, and colour density and balance. Activates machine rollers to feed film through printing light. Observes process and stops machine when completed, and rewinds reels of film, removing original and raw material at end of run. Identifies film for further processing.

May regulate machine controls manually to ensure printing process meets specifications.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 3 3 4 3 3 3 5 3	9 1	9 0 Y

9591-130 MOTION-PICTURE-FILM DEVELOPER (broadcast., motion pic. & stage)

Tends machine that develops and dries motion-picture film:

Threads leader film through chemical and water baths, drying machine, and onto holding slot of takeup reel. Mounts reel of exposed film on machine spindle and splices end of exposed film to leader film, using hand splicer. Splices together additional reels of exposed film to maintain continuous developing process. Starts and adjusts speed of developing machine to control length of time film remains in baths. Observes temperature and humidity gauges and adjusts rheostat to maintain baths and drier at specified temperatures. Manipulates valves to maintain levels of chemicals and water in baths. Changes filters and adjusts spindles to maintain correct film tension. Repairs breaks in film, using hand splicer.

GED: 3 SVP: 4 PA: M 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
3 4 4 4 4 4 4 3 5 5	9 1	Y 0

9591-134 PRINT TENDER (misc. serv.)

Tends machines that produce exposed black-and-white or colour prints from negatives prior to developing:

Attaches reels of negatives and sensitized photographic paper to machine and threads ends through guides. Examines negatives to determine appropriate machine settings and adjusts controls to meet specifications, or operates computer console to set-up and employ automated scanning device that interprets negative makeup and renders and fixes machine settings automatically. Starts machine to expose photographic paper and negative to light. Stops machine and removes negatives and reel of printed photographic paper for subsequent developing.

GED: 3 SVP: 3 PA: S 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C		
4 4 4 4 4 5 4 4 3 5 5	9 1 3	0 Y 2

9591-138 X-RAY-FILM DEVELOPER (misc. serv.)

Tends automatic equipment that develops x-ray film:

Opens film cassette and removes exposed film by hand, in darkroom. Positions exposed film in automatic developer and pushes end of film into feeder clamp. Starts machine to convey film through pre-mixed, machine-tested chemical solution, to develop film. Removes developed

film and replaces film into cassette for subsequent processing. May tend automatic equipment to develop x-ray plates.

GED: 3 SVP: 3 PA: S 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 3 5 5	9 1 3	Y 2

9591-142 NEGATIVE CUTTER (broadcast., motion pic. & stage; misc. serv.)

Cuts and splices specified sections of negative film to conform to edited positive film:

Places negative and edited film on spindle of winding machine. Threads ends of film through synchronizer and onto holding slot of takeup reel. Observes film to detect edge numbers and marks on edited film that indicate sections to be cut from negative film. Cuts sections from negative, using scissors, and splices ends together, using hand or foot-operated splicer. Marks negative film to indicate special effects, such as, fading. Maintains records of all finished film.

GED: 2 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 3 4 3 4 5	1 3	2 Y

9591-146 FILM-DEVELOPING-MACHINE TENDER (misc. serv.)

Tends automatic machines that develop and fix black-and-white or colour negatives from exposed strips of film: Removes exposed film from cartridge or unravels roll of exposed film and strips paper backing from film surface. Attaches one end of exposed film to spring clip on loading rack and attaches weighted clip to other end. Suspends loading rack from conveyor that feeds automatic developing machine. Removes tray of developed negatives from machine for further processing. Checks and maintains levels of solutions in chemical and water baths, and washes bath filters.

GED: 2 SVP: 3 PA: L 4 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 4 4 3 5 5	9 1 3	2 3 Y

9591-150 FILM-PRINTING-MACHINE TENDER (misc. serv.)

Tends machine to develop black-and-white or colour photographic prints from exposed photographic paper: Threads leaders around rollers in processing tanks, around drum of dryer, and onto holding slot of takeup reel. Splices ends of exposed photographic paper to leaders, using tape. Turns valves to fill processing tanks with pre-mixed solutions; such as, developer, dyes stop baths, fixers, bleaches and washes. Adjusts thermostat to maintain heated drum and solutions at specified temperature. Starts machine and manipulates switches to synchronize drive speeds of

processing and drying units. Stops machine and unloads reel of photographic prints.

GED: 2 SVP: 3 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 5 4 4 3 5 5	9 1 3	Y 2 3

9591-154 FILM SPLICER (misc. serv.)

Joins strips of undeveloped film and winds spliced film onto large reels prior to automatic processing:

Places roll of still or cine-film on spindle of splicer and large takeup reel at end of splicer. Positions ends of film from each reel in splicing fixture and depresses pedal to start splicer that trims ends of film, and joins ends, using staples or adhesive tape or feeds ends of film into automatic splicer and activates automated splicing process. Removes film from splicing fixture and depresses pedal to wind film onto takeup reel. Removes takeup reel when filled with film and places in container for subsequent processing. May operate machine to perforate identification number on film.

GED: 2 SVP: 2 PA: L 4 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 3 4 3 4 5	9 1 3	2 Y 3

9591-158 PRINT FINISHER (misc. serv.)

Mounts, trims and spots photographic prints to complete customer order:

Selects appropriate material for mounting, as specified by customer order. Mounts print in specified frame or on backing material employing either hot-pressed or cold-rolled mounting procedures. Removes mounted print from press and trims edges of print, using paper cutter. Moves print to spotting table and dusts spots on prints with fitting colours, using fine brush, to correct flaws, if required. Inserts prints and negatives in envelope for return to customer. May compute and record price of order according to size and number of prints.

GED: 2 SVP: 2 PA: S 4 EC: I DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 3 4 4 5 4	3 1	2 3 Y

9591-162 FILM CUTTER (misc. serv.)

Tends automatic or manually operated cutting machines to cut processed or developed rolls of prints or film into individual prints or negatives:

Adjusts guides of cutting machine according to size of roll. Threads roll of negatives or prints over machine guides and starts machine. Depresses foot pedal to activate cutter, or observes operation of automatic cutter. Collects individual negatives or prints, matches them

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to original order according to identifying codes, and packages them in envelopes.

GED: 2 SVP: 2 PA: S 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 <u>4</u> 4 4 3 4 5	3 1	2 3 Y

9591-166 FILM MOUNTER (misc. serv.)

Mounts colour film transparencies (slides) either of the following methods:

Places roll of transparencies on cutting machine and starts machine to cut individual transparency from roll. Places individual transparency in mount, by hand, and positions mount in press. Starts press to heat-seal transparency in mount. Feeds roll of transparencies into machine which automatically cuts and mounts individual transparencies. Loads machine with packs of transparency mounts. May place mounted transparencies in box and match with original order.

GED: 2 SVP: 2 PA: L 4 7 EC: I DPT: 6 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 3 5 5	3 1	2 3 Y

9591-170 FILM NUMBERER (misc. serv.)

Attaches numbered identification tag to film prior to automatic processing:

Research has indicated that the duties of this occupation are no longer performed as previously described in CCDO.

9591-199 OTHER PHOTOGRAPHIC PROCESSING AND FINISHING OCCUPATIONS

This residual group includes photographic processing and finishing occupations not presently classified in Unit Group 9591.

9599-MISCELLANEOUS CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with a variety of craft and equipment operating occupations, such as, maintaining totalization-systems at race tracks, making scale models of architectural designs, constructing props for motion picture, theatre and television productions, controlling stage spotlights, sterilizing drug and surgical supplies; and inspecting work as described under the term title, **02-170 INSPECTOR** (any ind.), such as, examining movie films, colour slides and prints for defects and irregularities.

Miscellaneous Crafts and Equipment Operating Occupations 9599-110 through 9599-126

9599-110 TOTALIZATOR-SYSTEMS ANALYST (telecom.)

Maintains computerized totalizator systems that automatically compute pari-mutuel wagering data for racetrack patrons: Studies technical data to comprehend operations of totalizator systems consisting of equipment such as, power supplies, ticket issuing machines. Central computer systems, control panel consoles, and electrical in-field display panels. Sets switches on control console and related equipment to integrate and operate systems according to program routines. Moves control switches to start operation of equipment. Observes control console operational lights that indicate equipment is functioning properly. Monitors closed-circuit television screen on console that scans in-field display panels to compare computer print-out data with information registered on infield display panels. Directs technicians to take corrective action when errors are detected on display panels or when console lights indicate circuit failure. Maintains telephone liaison with racing officials to feed pertinent information onto in-field display panels. Plans equipment maintenance and repair operations. Consults with appropriate personnel to verify accuracy of data provided for pari-mutuel system. Supervises activities of personnel required to dismantle, remove and assemble totalizator equipment at other racetrack locations. Consults with engineering staff to discuss technical aspects of equipment. Maintains operational record of equipment performance for statistical purposes.

GED: 4 SVP: 8 PA: L 4 5 6 7 EC: I 6 DPT: 1 6 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 2 <u>3</u> 3 2 <u>3</u> 3 4 4 4 5 5	9 7 1	0 9 Y 4 5

9599-114 MODEL MAKER (prof. & tech., n.e.c.)

Constructs scale models of objects, such as, ships and buildings, to illustrate development plans: Studies plans to solve problems, such as, layout, portability and lighting of model, and prepares drawings of model to be constructed. Designs and compiles specifications of sections of model to be cast from materials, such as metal and plastic, or formed from wood or clay. Assembles sections to build complete model according to specifications. May mould, form or cast sections of model.

GED: 4 SVP: 7 PA: M 4 7 EC: I DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 <u>3</u> 2 <u>3</u> 4 <u>3</u> 3 3 5 3	1 7 8	0 Y 9 1

9599-118 PROP MAKER (broadcast., motion pic. & stage)

Constructs props, miniatures and sets for motion picture, television and theatrical productions: Analyzes sketches, blueprints, and oral and written instructions to determine production requirements and work procedure. Fabricates props, miniatures and sets from wood, cardboard, plastic, rubber, cloth, metal and similar materials, using hand tools, and setting up and operating machines and equipment, such as, saws, lathes and drills.

Rigs and controls moving or functioning elements of sets that depict action.

GED: 4 SVP: 7 PA: M 4 7 EC: B DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 3 2 3 4 3 3 3 5 3	8 9 1	0 Y 1

9599-122 SPOTLIGHT OPERATOR (broadcast., motion pic. & stage)

Positions and controls spotlights to illuminate performers on stage, studio set, or at remote location:

Climbs lighting tower and assembles spotlights or places spotlights in various locations in theatre or on set and connects them to power supply. Wears headset and listens for instructions. Moves spotlight, manually, to follow movements of performers according to instructions or prepared cue sheet. Changes colour of light by inserting and by turning colour wheels, causing light to be diffused through varicoloured gelatin disks. Cleans and adjusts light, replacing carbon rods or bulbs as required. May operate panel board to manoeuvre spotlights and change colour of light.

GED: 3 SVP: 4 PA: M 2 3 4 6 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 3 4 5 3 4 3 5 3	1 3	0 Y

9599-126 STERILIZER (pharm. & toil.; scient. & prof. equip.)

Tends autoclave to sterilize drug and surgical supplies, containers and instruments:

Positions chart on automatic recording device to record time and temperature during sterilizing process. Wraps articles in paper or cloth. Places articles in autoclave manually or using handtruck. Secures door or lid, adjusts temperature and pressure controls and opens steam valve. Shuts off steam after specified time and removes sterilized articles. Records time, temperature setting, batch number and number of articles sterilized, and replaces chart on automatic recording device.

GED: 2 SVP: 3 PA: M 4 EC: I 3 DPT: 5 8 5

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 4 4 4 4 4 4 4 5	3 1 9	2 3 Y

Inspectors
9599-150 through 9599-199

9599-150 FILM-QUALITY INSPECTOR (broadcast. motion pic. & stage; misc. serv.)

Inspects movie films and colour slides for quality, by performing any combination of the following duties:

Places reel of film on spindle of rewinding machine. Threads film through guides on lighted viewer and onto holding slot of take-up reel. Starts machine and observes film through viewer to detect defects; such as, colour shading and balance, density, sharpness of image,

scratches and dirt. Allows film to pass through fingers to detect defects, such as, cuts, breaks and tears. Cuts out defective sections, using scissors, and operates machine to splice ends of film. Marks defective sections to indicate nature of defect, using grease pencil. Rewinds film. Packs film in container and identifies container, using inspection tag. Inspects colour slides for defects in mounting.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 4 3 5 4 4 3 5 3	9 3 1	0 Y 2

9599-154 COLOUR-FILM ANALYZER (broadcast., motion pic. & stage; misc. serv.)

Determines variations from standard colour balance and density specifications of colour prints and motion picture film using sensitometer and densitometer:

Exposes photographic material to light under standardized conditions, using sensitometer of film analyzer to assess variations in colour balance. Records results and recommends use of filters to compensate and correct colour balance. Determines colour density (resistance to passage of light) of photographic material, using densitometer. Records and evaluates readings to determine changes required in temperature and speed of machines during developing process. May compare results with specified standards for quality control purposes.

GED: 3 SVP: 6 PA: L 4 7 EC: I DPT: 3 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 3 4 3 4 4 4 4 5 3	9 1	9 0 Y

9599-158 MOTION-PICTURE-FILM EXAMINER
(broadcast., motion pic. & stage)

Projects motion-picture film on screen and observes resulting images to detect defects in developing and printing:

Threads film in variable speed projector. Starts projector and observes film projected on screen. Stops projector when defects appear on screen. Opens lower magazine on projector and unwinds film to locate defective portion. Attaches identifying clip to defective portion and records defect on work order. Rewinds film and restarts projector to complete examination. Approves film for release or assigns film for further processing.

GED: 3 SVP: 5 PA: L 4 7 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 4 4 4 4 4 4 5 3	1 3	0 Y 2

9599-162 PRINT INSPECTOR (misc. serv.)

Inspects rolls of photographic prints for conformance to specifications: Mounts roll of prints on spindle of film winder and attaches end to crankshaft, using tape. Turns crank or depresses pedal to start winding machine. Compares print with specifications and marks defective

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prints, using grease pencil, to indicate nature of defect and degree of printing correction required.

GED: 3 SVP: 5 PA: S 4 7 EC: I DPT: 3 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 5 4 <u>4</u> 5 <u>4</u> 4 <u>4</u> 4 4	1 3	0 Y 2

9599-166 DUPLICATE-FILM EXAMINER (broadcast., motion pic. & stage)

Compares copy of motion picture film with original to detect irregularities in colour, definition and detail:
Projects original and duplicate films on screens. Compares duplicate

with original film and rejects films not conforming to specification.
May compare copy of slide film for conformance to specifications.

GED: 2 SVP: 3 PA: S 4 7 EC: I DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 <u>4</u> 5 <u>4</u> 4 <u>4</u> 5 3	1 3	0 Y 2

9599-199 OTHER CRAFTS AND EQUIPMENT OPERATING OCCUPATIONS, N.E.C.

This residual group includes other crafts and equipment operating occupations that are not presently classified in Minor Group 959.

OCCUPATIONS NOT ELSEWHERE CLASSIFIED

This major group includes occupations, that cannot be properly classified in any other major group, or are concerned with activities that relate to more than one major group. These occupations are classified in the following minor group:

991 Occupations Not Elsewhere Classified

991-OCCUPATIONS NOT ELSEWHERE CLASSIFIED

This minor group includes occupations, not elsewhere classified, concerned with activities that cannot be properly classified in any other major group, or that relate to more than one major group. These occupations are classified in the following unit groups:

9910	Supervisors and Foremen/Women, n.e.c.
9916	Inspecting, Testing, Grading and Sampling Occupations, n.e.c.
9918	Occupations in Labouring and Other Elemental Work, n.e.c.
9919	Other Occupations, n.e.c.

9910-SUPERVISORS AND FOREMEN/WOMEN, N.E.C.

This unit group includes occupations, not elsewhere classified, as described under master title, **01-250 SUPERVISOR; FOREMAN/WOMAN** (any ind.), concerned with supervising and co-ordinating workers whose activities cannot be classified in any other major group, or are related to more than one major group.

9910-199 MISCELLANEOUS SUPERVISORS AND FOREMEN/WOMEN

This residual group includes supervisors and foremen/women that cannot be classified in any other major group.

GOVERNMENT. Occupations concerned with enforcing and advising on standards and adherence to regulations in organizations or agencies other than municipal, provincial or federal governments, are classified in Unit Group 1176, INSPECTORS AND REGULATORY OFFICERS, NON-GOVERNMENT. Non-government Inspectors, Testers, Graders and Samplers in the fields of processing specific materials, or fabricating and assembling goods or products are normally classified in special unit groups for Inspecting, Testing, Grading and Sampling Occupations in the appropriate minor groups. If such a unit group does not exist in an appropriate minor group, these occupations are classified in the residual unit group of that minor group.

Non-Destructive Testing Occupations 9916-110 through 9916-130

9916-INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified in inspecting, testing, grading and sampling work, as described under the term titles, **02-170 INSPECTOR** (any ind.), **02-430 TESTER** (any ind.); **02-150 GRADER** (any ind.), and **02-330 SAMPLER** (any ind.), concerned with quality control activities, that cannot be properly classified in any other major group, or are related to more than one major group. Non-destructive testers, concerned with testing a variety of materials or products, are classified in this unit group. Occupations concerned with enforcing and advising on government regulations are classified in Unit Group 1116, INSPECTORS AND REGULATORY OFFICERS,

9916-110 RADIOPHYSICIST, INDUSTRIAL (prof. & tech., n.e.c.)

Takes and interprets x-ray or gamma-ray radiographs of machinery such as, castings, weldments and forgings, pipes and structural members, to detect flaws, cracks, porosity, cavities or presence of foreign objects:

Aligns objects on stand between source of x-ray, or between cobalt or iridium isotope for gamma-ray, and film or plate on opposite side of object. Makes peripheral areas with lead shields. Selects type of radiation source and type of film and uses empirical mathematical formulae to determine exposure distance and time, according to size, mobility and strength of radiation sources in relation to density and mobility of object. Verifies radiation intensities, using radiation meters. Takes radiograph by adjusting controls of x-ray machine or by exposing film to source of radioactivity. Removes and develops film or

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plate. Monitors working area to protect personnel from radiation. Interprets radiographs and marks defects appearing on film to assist in identifying of flaws in subject. Submits radiographs for specialized investigation and files films as jobs are completed. May replace radioactive isotope in containers by manipulating tongs from behind protective lead shield. May mix chemical ingredients and fill developing bath with required solution to develop films.

GED: 4 SVP: 6 PA: L 4 7 EC: I 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>2</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>4</u> <u>4</u>	9 7 1	0 9 Y

9916-114 TESTER, ULTRASONIC (prof. & tech., n.e.c.)

Detects internal flaws in objects, such as, billets, forgings, castings, plates or extrusions, using ultrasonic tester:

Drains, brushes and rinses immersion tank of testing equipment. Refills tank with clean water. Mixes specified ingredients, such as, dichromate and aerosol, and dumps mixture into tank. Submerges test piece in tank and aligns transducer (scanning head) with surface of piece, using spirit level and shims. Selects crystal for transducer according to frequency to be used and thickness of test piece. Affixes crystal to connector of transducer and turns knob to adjust focus and brilliances of oscilloscope screen. Establishes basic calibration on screen according to characteristics of reference test piece. Moves transducer over test piece, submerged in tank, observes pattern on oscilloscope screen and compares results with pattern from master piece to determine exact location and type of defects. Rejects defective parts and outlines defective areas with chalk. Maintains log showing number and type of parts inspected and rejected.

GED: 4 SVP: 6 PA: M 4 7 EC: I 7 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>5</u> <u>4</u>	9 7 1	0 Y

9916-118 TESTER, FLUOROSCOPIC (prof. & tech., n.e.c.)

Examines welds of metal objects, such as, pipes or castings for excessive porosity, subsurface cracks or other hidden defects, using fluoroscopic testing equipment:

Moves workpiece on mounted carriage past fluorescent screen for inspection, or aligns workpiece on table, lowers fluorescent screen over workpiece, and starts machine. Turns dials to adjust fluorescent penetration depth according to density of metal. Examines reflections of workpiece on illuminated viewer or closed-circuit television to locate faults. Realigns workpiece for cross-sectional views and adjusts dials to new focus points. Rejects material not conforming to plant specifications, and marks and segregates defective pieces for salvaging. Records number of castings inspected and rejected, using counter and printed form. May submit radiation tester, worn on person, for inspection to ascertain amount of stray radiation escaping from fluoroscope and absorbed by the human body.

GED: 3 SVP: 5 PA: L 4 7 EC: I 6 DPT: 2 8 1

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>5</u> <u>4</u>	9 1	0 Y

9916-122 TESTER, EDDY-CURRENT (prof. & tech., n.e.c.)

Operates eddy-current-testing equipment to detect production flaws in metallic objects; such as, bars, extrusions and tubes, and to field test tubes from condensers, heat exchangers and reactors, to detect wear: Installs specified electromagnetic coils in testing machine, using hand tools. Passes test pieces through coil and adjusts dial settings of tester to calibrate equipment. Fills marking spray gun with paint. Loads objects or parts to be tested onto feed conveyor, using hoist. Sets control to feed articles through electromagnetic coils for testing. Observes oscilloscope for deviations in pattern, listens for audible warning signal, or notes positions of spray marks on articles to locate flaws. Examines surface defects, using magnifying glass, and tags and removes defective parts. Calibrates testing equipment according to type and specifications of tube(s) to be tested. Tests tube(s) by securing probe connectors to end of tube(s), monitoring oscilloscope screen readings, and by interpreting readings for each tube. Records test data and rates acceptability of tube(s). May conduct surface and experimental metallurgical tests, following similar procedures.

GED: 3 SVP: 4 PA: L 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>4</u> <u>4</u>	9 1	0 Y 2

9916-126 TESTER, MAGNETIC (prof. & tech., n.e.c.)

Operates magnetic-testing equipment to detect fractures and surface defects on metal parts such as, steel castings, camshafts, axles and piston pins, piping or similar items:

Adjusts electrodes or installs wire coil in tester according to part to be tested, using hand tools. Presses button to start feeder conveyor, or sprays part with iron oxide and positions it between electrodes in chamber of machine. Closes switch to start current that induces magnetic field so that iron oxide particles are accumulated at defective points. Removes parts from machine and examines for defects as indicated by thicker deposits of iron oxide particles. Rejects defective parts not meeting specifications. Maintains record of parts tested and rejected. May immerse parts in dipping chamber of machine containing solution in which iron oxide is suspended. May use fluorescent light to aid in detecting iron oxide deposits. May analyze size, shape and location of iron oxide deposits and report improper processing of parts or materials.

GED: 3 SVP: 4 PA: M 4 7 EC: I DPT: 6 8 2

APT.	INT.	TEMP.
G V N S P Q K F M E C		
<u>3</u> <u>4</u> <u>4</u> <u>3</u> <u>3</u> <u>4</u> <u>3</u> <u>4</u> <u>3</u> <u>5</u> <u>4</u>	9 1	0 Y 2

9916-130 TESTER, DYE PENETRANT (prof. & tech., n.e.c.)

Examines metal parts, using fluorescent-dye-penetrant materials and ultra-violet light source to reveal defects such as, weld breaks, cracks and fissures:

Immerses metal part in tank of penetrant solution containing fluorescent particles, or applies penetrant solution to metal part, using spray gun. Rinses part with water, using spray or brush. Applies developing solution, using brush, or sprays part with fluorescent powder. Dries part in oven, or leaves part to dry by air circulation. Moves and turns part under ultra-violet light source to locate defects indicated by fluorescence. Marks and assesses defects to classify parts

for reconditioning or scrapping. May operate hoist to position large parts. May examine parts under ultra-violet light without use of fluorescent-dye penetrants.

GED: 3 SVP: 4 PA: L 3 4 7 EC: I 6 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 <u>3</u> 4 <u>3</u> 4 <u>3</u> 5 4	9 1	0 Y 2

Miscellaneous Inspecting, Testing, Grading and Sampling Occupations
9916-150 through 9916-199

9916-150 PRESSURE TESTER (any ind.)

Conducts pressure tests to detect leaks in closed containers such as, boilers, tanks, piping, valves and related equipment, utilizing one of the following methods:

Closes, blocks or seals all openings in container or equipment to be tested. Attaches filling hoses, using wrenches, opens valves and fills test piece with water or other specified fluid, under pressure. Watches pressure gauge for indication of pressure loss and inspects test piece for signs of leakage. Marks leak points, using chalk or crayon. Closes, blocks or seals all openings in container to be tested. Attaches air hoses, using wrenches. Submerges test piece in tank of water, using overhead hoist. Opens valves to fill test piece with air under pressure. Watches pressure gauge for indication of loss of pressure and examines submerged test piece for bubbles indicating leaks. Marks leak points and removes test piece from water tank. May use welding apparatus to repair leaks in metal containers, pipes or tanks.

GED: 3 SVP: 4 PA: M 3 4 EC: I 4 DPT: 6 8 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 4 4 4 <u>3</u> 4 <u>3</u> 4 <u>3</u> 5	9 1	0 Y 2

9916-199 OTHER INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS

This residual group includes inspecting, testing, grading and sampling occupations that cannot be classified in any other major group.

9918-OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK, N.E.C.

This unit group includes occupations, not elsewhere classified, in labouring and other elemental work as described under the term title, **02-190 LABOURER/ELEMENTAL WORKER** (any ind.), and which are concerned with activities that cannot be properly classified in any other major group, or are related to more than one major group.

9918-110 LABOURER, MUNICIPAL (gov. serv.)

Maintains sidewalks, streets, roads and public grounds of municipality, working as member of crew:

Loads and unloads truck with tools and equipment. Sweeps and shovels

snow and debris from streets, sidewalks, gutters and catch basins into cart or truck. Assists in positioning catch-basin vacuum cleaner. Adds cement and other materials to cement mixer, and mixes and pours concrete into forms as directed. Removes broken areas of pavement, and fills breaks and potholes with asphalt mix, using shovel, rake and tamping iron. Digs ditches and trenches. Scoops or shovels sand or salt on sidewalks. Operates power mower to cut grass, and cuts grass and weeds beside roadways using scythe. Operates saws to cut branches from trees. Picks up litter, rakes leaves, places equipment, and performs other duties to maintain park grounds and playing areas in serviceable and tidy condition. Assists in repair of equipment. Performs a variety of other labouring duties.

GED: 2 SVP: 2 PA: H 3 4 EC: O DPT: 6 8 7

APT.	INT.	TEMP.
G V N S P Q K F M E C 4 4 5 4 4 5 <u>4</u> 4 4 5	1 3	2 3

9918-199 MISCELLANEOUS OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK

This residual group includes labourers and other elemental workers whose activities cannot be classified in any other major group.

9919-OTHER OCCUPATIONS, N.E.C.

This unit group includes occupations, not elsewhere classified, concerned with activities that cannot be properly classified in any other major group, or any other unit group of this major group, or are related to more than one major group.

9919-110 LABORATORY ASSISTANT (any ind.)

Prepares chemical solutions and samples, and cleans and distributes equipment in university, hospital, industrial, government or other laboratory:

Reads manual to determine quantity and type of materials and equipment required. Calculates quantities of chemicals required to prepare specified quantities and concentrations of reagents, culture media, and other substances. Weighs and measures chemicals, using balances and graduated containers. Mixes liquid and solid chemicals. Performs simple titration, pH, and other tests to determine that solutions contain prescribed amounts of chemicals. Pours solutions into containers, and pushes cart to distribute containers to laboratory work stations. Selects and distributes required glassware and equipment, and collects used glassware for cleaning. Cleans balances, microscopes, and other laboratory equipment. Helps technician to collect blood, urine, fecal and other samples, if required. Labels samples and other materials. Operates centrifuge or other equipment to prepare samples for testing or analysis. Delivers samples and other materials to technicians.

GED: 4 SVP: 4 PA: L 4 7 EC: I 6 7 DPT: 4 6 4

APT.	INT.	TEMP.
G V N S P Q K F M E C 3 3 <u>3</u> 4 4 4 <u>3</u> 4 4 5 <u>3</u>	1 3	2 3 Y

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9919-199 MISCELLANEOUS OCCUPATIONS, NOT ELSEWHERE CLASSIFIED

This group includes workers whose activities cannot be classified elsewhere in the Canadian Classification and Dictionary of Occupations.

**ALPHABETICAL INDEX
OF
JOB AND OCCUPATIONAL TITLES**

Refer to the Alphabetical Index in the most recent edition of the CCDO GUIDE for a complete listing of all job and occupational titles appearing in CCDO publications.

GUIDE TO QUALIFICATIONS PROFILE FACTORS

PHYSICAL ACTIVITIES (PA)

1. Strength (lifting, carrying, pushing, pulling) shown in terms of:
 S – Sedentary work (10 lbs. max)
 L – Light Work (20 lbs. max)
 M – Medium work (50 lbs. max)
 H – Heavy Work (100 lbs. max)
 VH – Very Heavy Work (over 100 lbs.)
2. Climbing and/or Balancing
3. Stooping, Kneeling, Crouching and/or Crawling
4. Reaching, Handling, Fingering and/or Feeling
5. Talking
6. Hearing
7. Seeing, in terms of: acuity far and near, depth perception, accommodation, colour vision and field of vision.
8. Controls: Operating machinery requiring the use of body members and eye-hand-foot co-ordination.
 Hand-Arm: Controlling the operation of machinery using only hand(s) and arm(s).
 Foot-Leg: Controlling the operation of machinery using only the leg(s) and one or both feet.
 Eye-Hand Foot Co-ordination: Controlling the operation of machinery requiring the co-ordination of movement of the hand and foot with each other in accordance with visual stimuli.

ENVIRONMENTAL CONDITIONS (EC)

1. Work Location
 I – Inside
 O – Outside
 B – Both
2. Extremes of cold plus temperature changes
3. Extremes of heat plus temperature changes
4. Wet and/or humid
5. Noise and/or vibration
6. Hazards, in terms of:
 – mechanical
 – electrical
 – burns
 – explosives
 – radiant energy
 – heights
 – dangerous footing
7. Atmospheric Conditions, in terms of:
 – fumes
 – odours
 – dusts
 – mists
 – gases
 – poor ventilation

WORKER FUNCTIONS (DPT)

The three broad categories of functional relationships to Data, People and Things are as follows:

DATA (1st digit)	PEOPLE (2nd digit)	THINGS (3rd digit)
0 Synthesizing	0 Mentoring	0 Setting-Up
1 Co-ordinating	1 Negotiating	1 Precision Working
2 Analyzing	2 Instructing	2 Operating-Controlling
3 Compiling	3 Supervising	3 Driving-Operating
4 Computing	4 Diverting	4 Manipulating-Operating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking-Signalling	6 Feeding-Offbearing
7	7 Serving	7 Handling
8 No Significant Relationship	8 No Significant Relationship	8 No Significant Relationship

* The functional digit 7 is not used in the Data Table in the CCDO.

GENERAL EDUCATIONAL DEVELOPMENT (GED)

Levels	Approximate Duration of Schooling
6	17 years plus
5	13 to 16 years
4	11 to 12 years
3	9 to 10 years
2	6 to 8 years
1	Up to 6 years

SPECIFIC VOCATIONAL PREPARATION (SVP)

1. Short Demonstration Only
- 2 – Anything Beyond short demonstration up to and including 30 days
- 3 – Over 30 days up to and including 3 months
- 4 – Over 3 months up to and including 6 months

- 5 – Over 6 months up to and including 1 year
- 6 – Over 1 year up to and including 2 years
- 7 – Over 2 years up to and including 4 years
- 8 – Over 4 years up to and including 10 years
- 9 – Over 10 years

APTITUDES

Aptitude Factors	
G	General Intelligence
V	Verbal Ability
N	Numerical Ability
S	Spatial Perception
P	Form Perception
Q	Clerical Perception
K	Motor Co-ordination
F	Finger Dexterity
M	Manual Dexterity
E	Eye-Hand-Foot Co-ordination
C	Colour Discrimination

Aptitude Levels

(in terms of working population)

- 1 Upper 10%
- 2 Upper Third exclusive of the Highest 10%
- 3 Middle Third
- 4 Lowest Third exclusive of the Lowest 10%
- 5 Lower 10%

When these levels are underlined, they are considered significant for satisfactory job performance.

INTEREST FACTORS

1. Things and Objects
2. Business Contact with People
3. Routine, concrete and organized work
4. Working for people for their presumed good as in the social welfare sense, or for dealing with people and language in social situations.
5. Work resulting in prestige or esteem of others
- vs. 6. People and Communication of Ideas
- vs. 7. Scientific and Technical Work
- vs. 8. Abstract and creative work or experiences
- vs. 9. Non-social work, carried on in relation to processes, machines and techniques
- vs. 0. Work resulting in tangible, productive satisfaction

TEMPERAMENT FACTORS

1. Variety and Change
2. Repetitive, Short Cycle
3. Under Specific Instructions
4. Direction, Control, Planning
5. Dealing with People
6. Isolation
7. Influencing People
8. Performing Under Stress
9. Sensory or Judgmental Criteria
0. Measurable or Verifiable Criteria
- X. Interpretation of ideas, facts, feelings
- Y. Precise attainment of set limits, tolerances or standards

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